FiBL

Socio-Economic Study of Organic Market and Sector Development in Ukraine



Thomas Bernet, Robert Home and Oleksandra Hasiuk

Frick and Kyiv, December 2018

This study has been undertaken within the framework of the Swiss-Ukrainian Organic Market Development in Ukraine Project funded by the Swiss State Secretariat for Economic Affairs (SECO).

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs,
Education and Research EAER
State Secretariat for Economic Affairs SECO

Research Institute of Organic Agriculture FiBL | Ackerstrasse 113 | Postfach 219
5070 Frick | Switzerland | Phone +41 62 865 72 72 | info.suisse@fibl.org | www.fibl.org

Executive Summary

Background, objective & methodology

The agricultural sector is of great importance in Ukraine. It generates more than 15% of employment, much of it in rural areas. It makes an essential contribution to the country's economic growth, particularly through export related activities—despite the fact that most of the produce is exported with little or limited added value. Aiming to change this situation, since 2005, SECO has made considerable investments in Ukraine by financing projects on organic market development and certification.

In 2018, the Swiss-Ukrainian Organic Market Development Project is coming to an end. This study aims to **evaluate its achievements** by **(a) documenting the development of the organic sector in Ukraine over the last decade** and **(b) assessing the number of new jobs and value addition opportunities that were stimulated by this project.** The study's results reflect on the sector's competitiveness and how potential future interventions can capitalize on the project's achievements and boost employment outcomes by further strengthening the organic sector's competitiveness. The study draws on different sources of information. First among these are the findings obtained through an online survey sent to more than 600 sector stakeholders, of whom 140 completed it. The insights from this survey were complemented with information acquired through a literature review, expert interviews, company case studies and focus group discussions.

Sector development & competitiveness

The study shows that the development of Ukraine's organic sector was clearly driven by export opportunities, especially during the first phase of the project (2005-2010), with the domestic market gaining relevance in the second phase of the project (2012-2018). Stakeholders participating in the online survey agree that **the project has made a very important contribution to the sector's development, especially in respect of: the growth of arable crop production, the number of services available to the organic sector, improved access to relevant information and learning events, the growth of the domestic market and policy development.** These findings tend to confirm the effectiveness of the project's approach to support the sector's development in general (i.e. through its project components 'service provision' and 'conducive business environment') while emphasizing human and social capacity development in the context of two specifically targeted value chains (i.e. through its project components 'organic arable crops' and 'organic dairy').

The study's findings clearly show **a sector that is competitive and continuously growing—even without receiving government subsidies**. Gross margin calculations that compare organic and conventional arable crop and berry production confirm this. Organic production is especially attractive because of the higher prices that can be fetched in the international market. The precondition for this is, however, that organic crops are well managed; otherwise, lower yields and increased labour requirements, especially for hand weeding, undermine the profitability of organic production.

Job creation & employment effects

Maintaining and creating new jobs in the sector go hand in hand with the overall development of the sector, which was stronger during the second project phase. Yet, job creation effects are very much business specific. Answers from the online survey show that there are **big crop and activity-specific differences in jobs created**. In addition, **job creation depended very much on whether organic businesses were started from scratch or converted from conventional production**. More than 50% of survey respondents stated that they had started a new organic business.

Consequently, the study draws differentiated conclusions with regard to employment effects. For instance, a surprising finding is that **well-managed large-scale organic arable crop production tends to involve less labour per hectare than conventional production**, as the organic businesses acquire bigger and better machinery to lower their costs and avoid manual weeding. Yet, as labour requirements are very low in arable crops (around 1.2 working days per hectare per year), the study reveals that **if job creation is the main priority, it would be wise to focus on other crops**. For instance, organic raspberry production entails more than 450 working days per hectare per year. With regard to milk, the study shows that no new jobs were created at the farm level when farms converted from conventional to organic production—but significant employment effects occurred at the level of dairy processing. Similar job creation effects take place in businesses where hand labour is essential in processing, i.e. cannot be replaced by machinery (e.g. hand sorting medicinal herbs or spices). The job creation effects in industrial processing (e.g. industrial berry and oil processing) are minimal.

Final reflection & recommendations

Overall, job creation impacts are difficult to capture and measure, or to attribute to one single project. Important private sector investment was involved in those businesses where meaningful new jobs were created. This is the case, for instance, in the organic dairy sector where without investments by big companies meaningful product growth and job creation would not have happened.

Nevertheless, in view of SECO's interest to prioritize employment potential future funding, the authors of this study argue that SECO should apply a similar sectoral development approach. By doing so, SECO would capitalize on its achievements at the sector level and further **continue to boost the sector's general development to positively impact employment.** Such sector approach is also key **to further boost human and social capital development, which is essential to further strengthen the sector's competitiveness and image within and outside Ukraine.**

Yet, to more explicitly trigger employment creation, SECO is advised to target crops and sub-sectors that offer more promise of generating meaningful direct and indirect employment opportunities in rural areas, including job opportunities for skilled young people in rural areas.

Foreword

Ukraine's organic sector has gone a long way from a few 'mission- driven' pioneers in 1970ies to more than 500 certified organic operators in 2018. This Socio-Economic Study of the Organic Sector, carried out by FiBL, captures this journey, with a focus on the development of Ukraine's organic sector in the second millennium. It takes stock of developments, assessing Switzerland's contribution to these, and highlights key questions about sustainable growth while focusing on competitiveness, value addition and job creation. The study wraps up a decade-long engagement in Ukraine's organic sector by SECO, the Swiss State Secretariat for Economic Affairs through The Organic Market Development in Ukraine Project.

Strengthening the competitiveness of the organic production has been a major goal of this programme. To our satisfaction, this study shows that this goal has been clearly met: many of Ukraine's organic arable crop producers are now able to compete internationally and command premium prices for their quality products in high-end markets in the EU and Switzerland, while the domestic market is dynamically growing, with a tripling of turnover within the last five years. We particularly invite the reader to peruse the informative presentations of 'lighthouse' organic farms and enterprises, which also persuasively demonstrate how the organic sector has been benefiting from innovative leaders with long-term visions that go beyond economics.

SECO asked the authors of the study to look more deeply into the potentials of organic farming for job creation—forward looking—providing input into the design of new initiatives that more explicitly target employment outcomes. Firstly, the organic sector in Ukraine is challenged by a lack of qualified labor force. Secondly, Ukraine, like many other countries in the region, is suffering from migration, causing a "hand and brain drain". Organic agriculture is expected to create new job opportunities in rural areas, especially also for the younger generation. In this regard, the study produced some surprising results. As expected, organic farming is often more labour intense than conventional farming. But this is not always the case: much depends on the crop and the level and type of processing. These interesting, but preliminary results should, however, be treated with caution, owing to the limited nature of the available data.

Looking forward, SECO believes that this study provides a valuable basis for shaping future possible programmes aimed at fostering greener economic development in Ukraine and generating socio-economic benefits. Switzerland remains a committed partner of Ukraine eager to continue supporting the sustainable development of Ukraine's agrifood sector.

Barbara Jäggin

State Secretariat for Economic Affairs,
SECO, Bern, Switzerland

Viktor Shutkevych

Swiss Cooperation Office
Embassy of Switzerland, Kyiv, Ukraine

Acknowledgements

This study was only possible thanks to the many people who shared essential information, insights, and reflections with us. We especially want to thank the following:

- *Barbara Jäggin* and *Viktor Shutkevych,* from SECO, who not only commissioned this study from FiBL but also provided us with important guidance for the study.
- *Tobias Eisenring*, *Natalie Prokopchuk*, *Toralf Richter*, and *Beate Huber*, from FiBL, who supported the project team in a most meaningful manner, in sharing and accessing relevant information.
- *Matthew Ripley* and *Steve Hartrich,* from the Value Chain Development Programme of the International Labour Office, who have backstopped the collection and interpretation of employment data.
- *Viktor Kyz, Glib Lukyanenko, Oleg Trofanchuk, Anastasiia Maliyenko*, and *Oleg Shubrat* who allowed us to document their companies as case studies, letting us share insights into the 'organic development' of their companies and their job creation effects.
- *Zinaida Kalmykova, Andrii Nikolaiiuk*, and *Nataliya Tkach*, who kindly shared insights about the development of their organic dairy businesses and the related employment effects.
- *Oleksii Kachkovskyi, Olena Deineko, Nataliya Turchyk, Andrii Vdovychenko,* and *Viktoriia Hykava*, who provided essential information about job creation effects in arable crops, berry cultivation and wild collection activities.
- *Sergiy Galashevskyy, Kateryna Shor, Kseniia Gulieva, Andrii Olefirenko,* and *Olena Rakova,* who volunteered to act as focus group participants, and reflected on the study's findings to provide deeper insights.
- *The 140 anonymous stakeholders* who gave their precious time to share their perceptions and thoughts about the Ukrainian organic sector – without them, this study would not have possible!

Lastly, we thank *Olga Trofimtseva,* Deputy Minister for European Integration, and *Olena Kovaliova,* Deputy Minister from the Ministry of Agrarian Policy and Food of Ukraine for the good collaboration in supporting the developing the organic market in Ukraine.

Table of Contents

Acronyms

CIDA	Canadian International Development Agency
ConsCert	Consolidation of the Local Organic Certification Bodies project
DCFTA	Deep and Comprehensive Free Trade Area
DZI	State Enterprise National Research and Information Center for Monitoring International Commodity Markets (Derzhzovnishinform)
EBRD	European Bank for Reconstruction and Development
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FiBL	Research Institute of Organic Agriculture
FTE	Full time equivalent (seasonal jobs converted into 12-months jobs)
GDP	Gross Domestic Product
GTZ	German Organisation for Technical Cooperation
ha	Hectare
MoAP	Ministry of Agrarian Policy and Food of Ukraine
MoFA	Ministry of Foreign Affairs of Ukraine
MoU	Memorandum of Understanding
NGO	Non-Governmental Organization
SCA	Swiss College of Agriculture (HAFL Zollikofen)
SDC	Swiss Agency for Development and Cooperation
SECO	State Secretariat for Economic Affairs, Switzerland
SIPPO	Swiss Import Promotion Programme
SME	Small and medium sized enterprise
UAH	Ukrainian currency Hryvna
USAID	U.S. Agency for International Development
USD	US Dollars
WNISEF	Western NIS Enterprise Fund (funded by USAID)

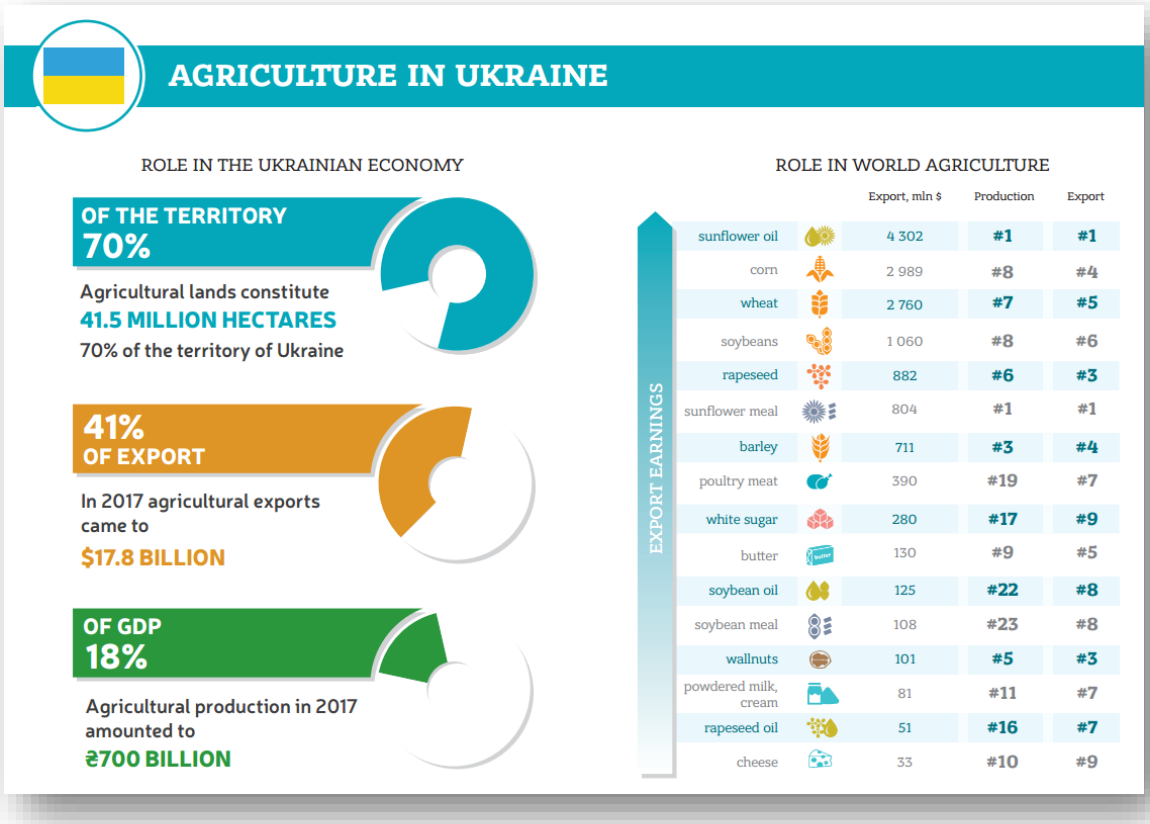
1. Introduction

1.1 Agriculture in Ukraine at a glance[1]

Ukrainian agriculture is a vibrant sector that offers interesting investment opportunities. It generates around 11-14% of the national GDP and employs approximately 17% of the working population.

Ukraine has 42.2 million hectares of agricultural land, 70% of the country's total area. Of this, 32.5 million hectares (76%) is arable land. Ukraine has highly favourable conditions for large-scale agriculture, with warm summers, rich agricultural soils and access to abundant land and water resources.

Agricultural GDP (as of 2016) was 9.8 billion USD. Most of this comes from arable crop production, which generates 72.8% of the value of total agricultural production. In 2016, the main crops grown in Ukraine were wheat (6.2 million hectares) and sunflowers (6.1 million hectares), followed by maize (4.2 million hectares), barley (2.9 million hectares), soybeans (1.9 million hectares), and rape/canola (0.5 million hectares). Ukraine is the world's largest producer and exporter of sunflower oil and meal.



[1] Sources: Adapted from http://minagro.org.ua/docs/Doing_Agribusiness_in_Ukraine.pdf and http://minagro.org.ua/docs/GrowInUkraine_2018.pdf

The overall volume of agricultural exports in 2016 amounted to 15.3 billion USD, 0.7 billion USD (5%) more than in 2015. The most important export products are sunflower oil (24% of agricultural export value), wheat (18%), and corn (17%). The main markets are Asia (48%), the EU (27%), and Africa (16%).

Most produce is currently exported with little or limited added value and the country is keen to develop new business opportunities to capitalize on its good resource base for agricultural production. The most promising niches in the global food market for adding value are fruit, vegetables and organic produce.

1.2 Policy challenges relating to the Ukrainian agrarian sector

According to the Single and Comprehensive Strategy for Agriculture and Rural Development in Ukraine for 2015-2020[2], Ukraine's agricultural sector faces a number of challenges which hamper the sector's competitiveness and require special attention in policy making:

Unhealthy business climate – corruption, high administrative and regulatory burden.

Lack of access to credit, especially for small farmers – underdeveloped agri-finance infrastructure, lack of investment capacity and available loans, coupled with prohibitive interest rates.

Undeveloped rural infrastructure – poorly developed rural markets and other rural infrastructure, costly logistics and high transaction costs.

Low productivity levels– relatively low productivity in agriculture and agri-processing.

Inappropriate standards – some national food hygiene and safety standards and quality requirements do not meet international norms and require adjustment.

Lack of effective policy – *ad hoc* and opportunistic state agricultural policy, lack of long term strategy, absence of a level-playing field for all producers and sectors, market-distorting interventions and unbalanced allocation of budgetary support.

Inflexible land market – continued delay of the introduction of market sales and purchases of farmland, coupled with the impossibility of using land as collateral and insecure property rights.

Limited range of export crops – exports relying on a small range of agricultural commodities, which are exported mainly as raw materials—implying a high vulnerability to adverse weather and market conditions or political events.

Constrained processing facilities – the limited manufacturing infrastructure hindering value addition and exports of semi-finished products.

Farm structure and farmers' attitudes – large proportion of small household/subsistence farms who have conservative attitudes and are reluctant to innovate and engage in commercial partnerships.

[2] Source: http://minagro.gov.ua/en/node/15990

Low skills levels – generally low educational attainment in rural areas, lack of qualified and highly skilled staff to use modern technologies and set in place good managerial practices.

Ineffective research structures – underperforming agricultural science, research and development, and education systems.

In respect to policy making *per se*, the process of adopting and implementing concrete laws often faces obstacles. In several cases, laws that had been adopted have only been partially implemented, or their implementation took much more time than anticipated. The rather unpredictable and opaque law making process creates an insecure legal framework, which hinders overall business development and investments.

1.3 Study background

This socio-economic impact study has been conducted as a special activity of the Swiss-Ukrainian Organic Market Development Project, funded by SECO and implemented by FiBL (see Box 1). It sets out to describe the developmental trends in Ukraine's organic sector since 2005, when the project started – and to appraise the contribution that the project has made to these developments. The study focuses on three main areas to provide evidence that organic production is a viable business proposition at the farm and sector level: (1) the job creation effects, which can also be used as a proxy for income generation, (2) value addition[3] along the most important organic value chains, and (3) the competitiveness of organic compared to conventional agricultural production.

Box 1 The Swiss-Ukrainian Organic Market Development Project

In line with SECO's country strategy for Ukraine 2005-2010, SECO's motivation to fund this project related to the argument that 'organic agriculture has the important advantage to create socially, ecologically and economically meaningful opportunities for rural areas and farmers'. The project started with a first phase aiming to build up certification services in Ukraine and help develop the organic sector with a strong market-oriented approach.

Thus, the goals of the project's Phase I (2005-2010) were:

- Set up a certification body, using a multi-stakeholder approach;
- Develop the organic market through selected market services and provision of targeted support for organic market initiatives/pilot projects;
- Support policy dialogue with Ukraine's competent authorities for organic production in order to develop capacity in this field.

[3] In this study, 'value addition' relates to products whose value can be increased through processing and marketing activities, thus fetching higher market prices and generating higher incomes for producers. Other 'added value' that organic production may involve (i.e. producing healthier food while promoting soil fertility and biodiversity) is not taken into consideration at this point.

Phase II of the project (2012-2016)[4] aimed to strengthen the competitiveness of the country's organic sector by focusing on small and medium sized enterprises (SMEs):

- Increasing the quality and volume of selected organic arable crops from small and medium-sized farms for export;
- Increasing the quality and volume of organic dairy products from small and medium-sized farms for the domestic market;
- Developing a trademark for regional food products from the Carpathians;
- Improving commercial organic services;
- Fostering a conducive environment for the further development of the organic sector.

The project has been implemented by the Swiss Research Institute of Organic Agriculture (FiBL) in cooperation with sector stakeholders in Ukraine and the Ministry of Agrarian Policy and Food of Ukraine. The project ends in 2018.

This study is forward looking, aiming to provide evidence to which organic farming helps to generate income, create jobs and add value along value chains and for rural areas. It aims to provide insights into how to optimally design future organic development programmes in order to create more and better jobs. It also includes recommendations on ways to improve data availability and collection, so as to better measure the job creation and income generation effect of such programs.

1.4 Methodology

The study used five complementary methodologies to obtain information (see Table 1):

Table 1 Overview of methodologies to cover different relevant study topics

Aspects to be covered	1. Desk research	2. Online survey	3. Case studies	4. Focus group	5. Expert interviews
A. Sector overview	+++	+++	+	++	++
B. Sector development trends	+++	+++	++	+++	++
C. Project attribution to sector development	+	+++	++	+++	++
D. Employment effects	+	+++	+++	++	++
E. Value addition effects	+	++	+++	+++	++
F. Competitiveness organic sector versus conventional	+	++	+++	++	+++

[4] This project phase was prolonged to 2018.

1. Desk research – This included a review of different documents, including the project's baseline studies, Biofach reports, annual project reports, external project evaluation reports, and other relevant (and accessible) organic sector statistics and reports.

2. Online survey[5] – An online survey was sent to organic sector stakeholders (see Annex 1 and 7) to develop a picture of how they perceive the sector and its development, the contribution that the project has made to this development, their own business and activities, and the sector's future prospects. The survey also asked private sector actors to provide data concerning job creation effects and value addition.

3. Case studies – Five private companies were asked to share concrete information about the development of their organic business. In order to better understand the value addition and job creation effects, each case study was structured using the same 'guiding questions': (a) *'what was the trajectory of the company's development?'*, (b) *'what value addition activities were pursued?'*, (c) *'what changes were there in terms of employment?'*. In order to capture differences between crops and value chains, the study selected companies involved in arable crop production and processing plus a berry production and processing company (see Box 2 to Box 6).

4. Focus group – A focus group was convened, consisting of six organic sector experts (see Annex 6) to reflect on the survey's findings and draw jointly agreed conclusions and recommendations.

5. Expert interviews – At different stages of this study, interviews were conducted with different sector stakeholders in order to: test the survey questions, to access data about gross margin calculations and employment creation in different organic businesses, and to validate the study's main conclusions.

Additionally, we contacted also different key organic operators who did not participate in the online survey, to obtain a more complete picture and understanding about employment effects. This additional information helped us to derive more solid conclusions about the magnitude of employment that has been generated within the organic sector over the project's lifetime.

[5] The survey was sent to 602 organic stakeholders, relating to databases of the Swiss Ukrainian Organic Market Development Project and Organic Standard.

2. Organic market and sector development in Ukraine

2.1 Before 2005

The introduction of explicit organic cultivation practices in Ukraine dates back to the late 1970s, when Semen Antonets pioneered the use of subsurface tillage and abandoned the use of mineral fertilizers, herbicides and other agrochemicals on his farm in the Poltava region (Serreau 2010). In the following years, the Agroecology Private Enterprise (see Box 2) became a model farm showcasing nature-conserving agricultural practices in Ukraine, which were in sharp contrast to Soviet production practices based on abundant chemical inputs.

Yet, the actual development of an organic sector within Ukraine didn't occur until the 1990s, when the demand for organic arable crops started to grow in Western and Central Europe and some investors saw the opportunity to convert big Ukrainian farms to organic production. The first organic exports took place in the late 1990s, and by 2003, 230,000 ha of land were either organic or 'in conversion' (see Figure 2) – involving 69 production units, with an average size of about 3,500 ha, mostly producing wheat, barley, sunflowers and maize for export. This development was sustained by the interest of international certification bodies in offering certification services for Ukrainian farms. By 2005, 5 certification bodies were active in Ukraine, including: Control Union (Netherlands) – with a market share of 66% of certified land, Lacon (Germany), Biokontroll Hungaria (Hungary), IMO and bio.inspecta (both from Switzerland) (Schneider et al. 2005).

The rapid international development of the organic market in the early 2000s triggered the interest of the Swiss government in supporting the development of the organic sector in Ukraine. This initial interest was primarily related to the higher inherent sustainability of organic farming.[6] With SECO becoming active, project funding shifted more towards promoting international trade in certified organic products, with the aim of contributing to the overall goal of Switzerland's cooperation with Ukraine—with 'trade' being an explicit part of SECO's strategy to stimulate innovation along value chains as a way of increasing competitiveness and sustainable economic growth.

While project funding was mostly focused on developing export opportunities, there was also increased interest in supporting the development of the domestic market, as surveys revealed a growing interest among consumers in accessing organic products

[6] The first projects focusing on organic agriculture started in 2000, when SDC funded a 2-year pilot project 'The sustainable production of certified Ukrainian organic hard wheat and export to Switzerland'. This project was implemented by the Swiss College of Agriculture (HAFL) and co-funded by the Swiss import company Blattmann + Co AG.

and willingness to pay premium prices for them. At that time, there was already a range of different imported organic food products in Ukraine's supermarkets, together with a wide range of so-called "environmentally clean" products[7] sold at premium prices (SECO 2005).

The foundation of the BIOLan Association in 2002 enabled also smaller farms to convert to organic production. With the main objective of creating and developing an internal organic market, the association involved more than 30 members, including producers, representatives of farmers' unions, representatives of training and advisory centers, research and administration and trade and processing companies (Schneider et al. 2005). Between 2003 and 2010, BIOLan received funding from the Swiss Agency for Development and Cooperation through 'The Sustainable Land Use in Ukraine EcoLan Project' to build capacities in the field of organic agriculture (BIOLan 2010). Farmers were trained in organic production techniques and marketing activities. The project also established a long-term agronomic trial to compare different farming systems (biodynamic, organic and conventional), in collaboration with the Illintsi State Agrarian College, and arranged student exchanges with Switzerland.

Picture 1 BIOLan label

2.2 From 2005 to 2011

BIOLan's lobbying activities led to the first draft of the law on organic agriculture being presented to the Ukrainian parliament in May 2005. In order to get the first Ukrainian organic products onto the market, a private standard, the *BioLan label*, with its own logo, was introduced into the Ukrainian market (see Picture 1). However, for larger, export-focused companies, this label was of little interest. Their priority was to gain certification that would help them enter international markets, especially that of the EU (Regulation (EC) No 834/2007).

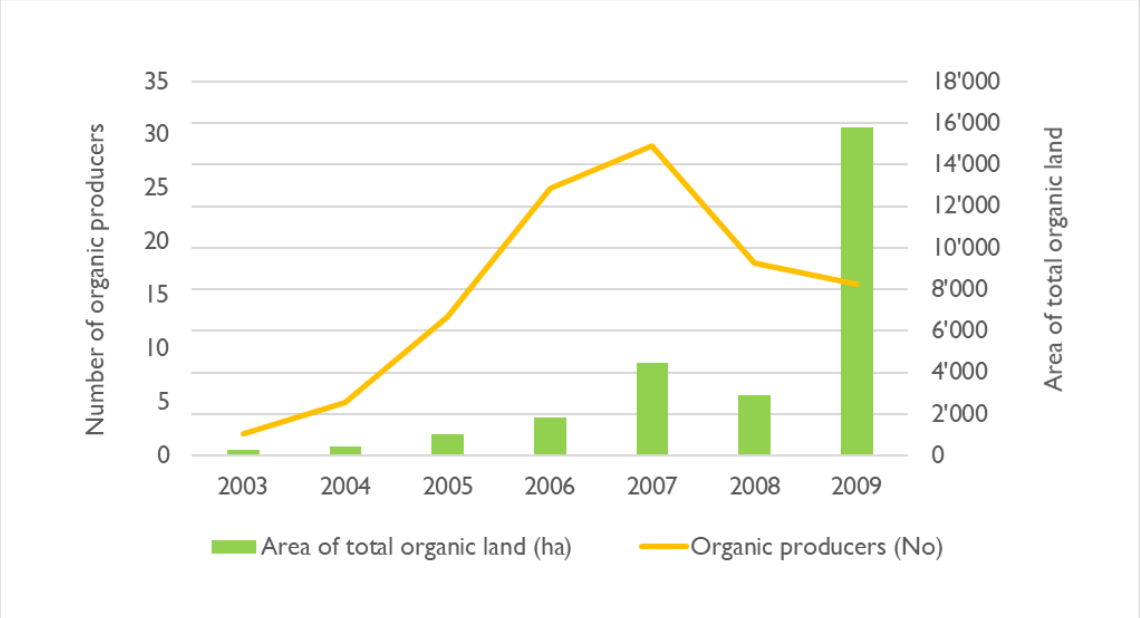
In 2007, with the support of FiBL, the local certification body "Organic Standard" was founded, with BIOLan as one of the shareholders. FiBL's involvement was made possible thanks to 'The Organic Certification and Market Development in Ukraine project', which started in 2005 with funds from SECO (see Box 1). This project aimed to lower certification costs for SMEs by helping to establish a local certification body[8] in order to increase the competitiveness of organic farming in Ukraine, and thus enable the

[7] The product claim 'to be environmentally clean' related to the fact that the involved products were grown in areas whose soils were not contaminated by radioactivity from the 1986 Chernobyl disaster.

[8] International certification bodies charged international travel costs and expert time, so the costs per farm were considerable, around CHF 1,400 in the case of bio.inspecta (SECO 2005).

development of the country's organic sector. In addition to supporting the establishment and development of a local certification body, this project targeted three other key areas, as identified in a previous FiBL expert mission (Schneider et al. 2005): (a) the lack of information concerning market demand and supply, (b) the lack of an organic law in Ukraine[9], and (c) the lack of an organic stakeholder network (SECO 2005).

Figure 1 Changes in the number of organic BIOLan producers and their organic land during the BIOLan project (2003-2009)



Source: BIOLan 2010

BIOLan's efforts to develop the organic market and help its farmers access external and internal markets ran into several problems. The first exports to Switzerland—two containers of organic grain—were not profitable, as the small volume could not cover the logistical costs and their quality did not meet Swiss standards. On the domestic market, potential buyers wanted processed end products, but the low volumes and the lack of suitable organic processing infrastructure made the endeavor impossible.

The difficulties in securing a market for organic produce led to a decline in the number of farmers involved in BIOLan. And when BIOLan stopped covering the certification costs for its members in 2008, the number of member farms dropped from 29 to 18 (see Figure 1). By 2009, it was mainly the bigger companies who remained as active members, as they were in a better position to generate profits and make the investments needed to

[9] In February 2004, the first Deputy Minister of the Ministry of Agrarian Policy confirmed the Ukrainian Government's strong interest in developing a comprehensive concept of organic farming and a corresponding legal framework. In 2005, a government program was started with the aim of developing 'ecological and competitive' agriculture in Ukraine. One of the objective was the implementation of a program to develop and promote Ukrainian organic products (SECO 2005).

improve their technologies, storage and marketing facilities; as well to cope with the financial crises that hit in 2008 (BIOLan 2010). In 2008, *Natur Boutique* opened in Kyiv the first shop in Ukraine to specialize in organic products (www.natur-boutique.ua), and started to sell Ukrainian organic products from BIOLan members. (Natur Boutique, 2018). In 2009, around 60 outlets were selling organic products, in all of the country's bigger cities. Despite this, the range of organic products available was limited and the products very expensive (van Elzakker et al. 2009).

The closure of the EcoLan project in 2010 reduced BIOLan's ability to provide services to its members, i.e. being unable to support marketing activities for producers selling to the domestic market or to provide loans to members. As a result, only a few organic producers were able to continue supplying products to local retailers.

Figure 2 Organically certified farms and land (organic and in conversion) in Ukraine: 2002 to 2016

Source: OFU[10] (2002-2015); Reform Support Team at the MoAF (2016).

In parallel with, and independently from, BIOLan's efforts and struggle to develop the market and increase organic production, other big farms converted to organic during the same period, contributing to a constant growth of the area of land under organic cultivation in Ukraine. In 2005, *The Organic Federation of Ukraine* (OFU) was founded and also aimed to promote the organic movement within the country. An important instrument for this was OFU's own magazine, *Organic UA*, starting 2008, which was supported with funds from USAID and other international donors, including SECO.

[10] Available at www.organic.com.ua

Another important service that OFU offered was collecting and publishing data about the number of organically certified farms and land in Ukraine (see Figure 2 and Annex 2). As official government statistics were not available until 2018, OFU's statistical data were also used as reference data for FiBL's statistical yearbook on organic agriculture *The World of Organic Agriculture. Statistics and Emerging Trends* (www.organic-world.net).

With a yearly average growth rate of 13% between 2005 and 2011, OFU's data reveal the steady interest among producers in converting to organic production. Nevertheless, export ventures faced different problems: inferior product quality, high logistical costs, high (EU) tariffs and import quotas, and the rather negative image of Ukraine internationally.[11]

Since 2008, the SECO-funded Swiss Import Promotion Programme (SIPPO) supported through FiBL's "Organic Market Development Project in Ukraine" individual Ukrainian companies to participate at Biofach in Germany. Involved companies highly appreciated this support in terms of learning, networking and finding clients (FiBL 2012)[12].

Other activities of the Swiss-Ukrainian Organic Market Development Project further strengthened the export capacity of the country's organic sector, while also helping to create awareness about organic products domestically. Various project partners were supported in organizing local fairs, in Lviv, Kyiv, Donetsk, the Ivano-Frankivsk cities, and Trypillia (Kyiv region), which together attracted around 40,000 visitors. The project also supported dozens of capacity building events, including buyer missions, field days, training courses, seminars, and conferences,[13] with a total number of about 2,000 participants. The project estimates that it reached 5-7 million people through media (TV, print media, Internet, radio) with 'organic messages'. Working together with Organic Standard, BIOLan and IMO, the project also published the country's first organic input list in 2011 with the aim of enhancing the availability and use of inputs for organic production (FiBL 2012). These activities were complemented with funding from other donors—including Canada (CIDA), Germany (GTZ) and the Netherlands (Ministry of Agriculture and Environment)—supporting different activities relating to the development of the organic sector in Ukraine (Prokopchuk & Eisenring 2011).

[11] International buyers often referred to Chornobyl when reflecting the level of trust and the image of Ukraine. With its Soviet past and influence, buyers tended to perceive Ukraine as a 'risky' country from an investment and certification point of view, with different legal and political framework conditions.

[12] At least three Ukrainian companies successfully concluded contracts with international buyers, and the first Bio Suisse certified crops were exported to Switzerland in December 2011 (FiBL 2012).

[13] In 2009, the first annual conference on processing and trade was organized in collaboration with the Ministry of Agrarian Policy, the Embassy of the Kingdom of the Netherlands in Ukraine, EkoConnect (Germany), BIOLan Association, International Foundation Avalon (Netherlands), Grimco Trade Holland, and the French Embassy in Ukraine at the international exhibition WorldFood Ukraine.

2.3 From 2011 to 2018

In 2011, the Ukrainian parliament adopted an organic law, which was, however, vetoed by the President. This hindered the development of the domestic market as the term 'organic' had no legal protection (Prokopchuk & Eisenring 2011).

In any case, export opportunities at this stage promised a better perspective for SECO to promote 'sustainable trade' as a means to contribute to sustainable growth. Consequently, Phase II of the Swiss-Ukrainian Organic Market Development project prioritized organic arable crop production, as this was seen as the subsector with the most potential to boost the development of the country's organic sector.[14] Additionally, the project also focused on developing the domestic dairy sector, which was considered of strategic relevance in stimulating the development of the domestic market by broadening the assortment of organic products with value addition products. With these two project components, also the concept of integral farms could be promoted, i.e. farms that integrate both arable crops and animal husbandry as part of an organic production system (FiBL 2012).

The activities of Phase 2 of the Organic Market Development Project, which started in 2012, helped to give further momentum to Ukraine's market development. Based on the lessons learnt from Phase I, the project targeted larger farms and companies through the *Leader Approach*, in which so called *Leader Companies* were chosen to act as drivers for developing the organic market while serving with their implemented organic practices as examples for small and medium sized enterprises (SMEs) to follow (Eisenring et al. 2014). The 4 companies that were selected as Leaders[15] were supported technically and linked with potential buyers, in return for agreeing to be used as 'training sites' to showcase (best) organic practices.

The project continued to promote exports. Most important in this regard was the launching of a Ukrainian National Pavilion at Biofach in 2014 (see Table 2). Every year since, this pavilion has provided a key opportunity to connect Ukrainian producers with potential buyers. At the same time, Biofach helped enhance SME's awareness and understanding about relevant production and trade related issues and place Ukraine on the 'organic world map', respectively help change unfavourable perceptions about Ukraine among visitors of the pavilion. Table 2 highlights the continuous development of the Ukrainian Pavilion during five subsequent years.

[14] In 2012, an internal FiBL study calculated that 70% of Ukraine's organically certified land was dedicated to cereals (including maize, buckwheat and millet), 25% to oil crops (around 75% sunflower, the rest canola and mustard), and 5% to other crops (e.g. grassland, vegetables, and fruits).

[15] A set of evaluation criteria were applied to evaluate applicants who the signed a Memorandum of Understanding.

Table 2 Key data concerning the Ukrainian National Pavilion at Biofach 2014-2018

Indicator data	2014	2015	2016	2017	2018
Total number of exhibitors	9	9	11	17	20
Direct exhibitors	*9*	*9*	*11*	*12*	*17*
'Remote' exhibitors				*5*	*3*
Total number of business meetings	272	462	517	810	1,133
New contacts	*250*	*319*	*396*	*688*	855
Existing contacts	*22*	*143*	*121*	*122*	278
Value of contracts (in million EUR)	4.0	7.6	10.2	11.2	13.7
Number of visitors from Ukraine	291	211	309	320	438

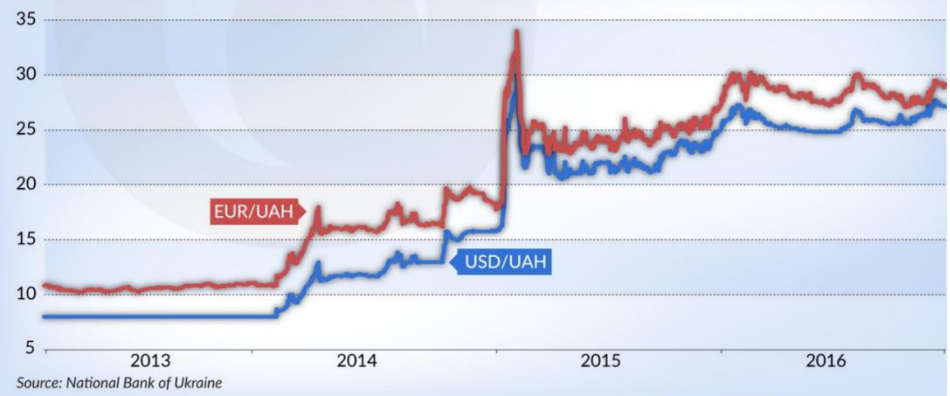
Source: Shor et al. 2018.

In regard to improving Ukraine's image through an own pavilion, the initially defined stand concept developed by FiBL proved to be solid and remained the same during the five years (see Picture 2). The stand concept capitalized on the colours of the Ukrainian flag and emphasized the core values as defined in the concept document: "transparency & openness" and "big potential & great opportunities" (Eisenring & Bernet 2013). A special 'Ukraine Forum' that was held during Biofach since 2016 helped additionally to create a more positive country image.

Picture 2 Ukrainian Pavilion at Biofach 2014

Biofach also has served as an opportunity for exchanges with and among donors who were supporting the development of the organic sector in Ukraine. In addition to SECO, a number of other projects and organisations have contributed to the Ukrainian National Pavilion, including the EU funded EaPGreen project, the German projects 'Agritrade' and 'German-Ukrainian cooperation in organic agriculture', the US funded WNISEF project, FAO, EBRD, the EU4Business Initiative, and Ukrainian funding through the side of DZI (Ministry of Economic Development and Trade of Ukraine) and MoAF.

All in all, the Ukrainian Pavilion at Biofach has certainly had a very positive impact on organic exports from Ukraine. Year on year, the number of Ukrainian exhibitors and visitors, as well as the number of business contacts and the volume of contracts signed, have increased (see Table 2).



Picture 3 UAH Exchange Rate Development between 2013 and 2016

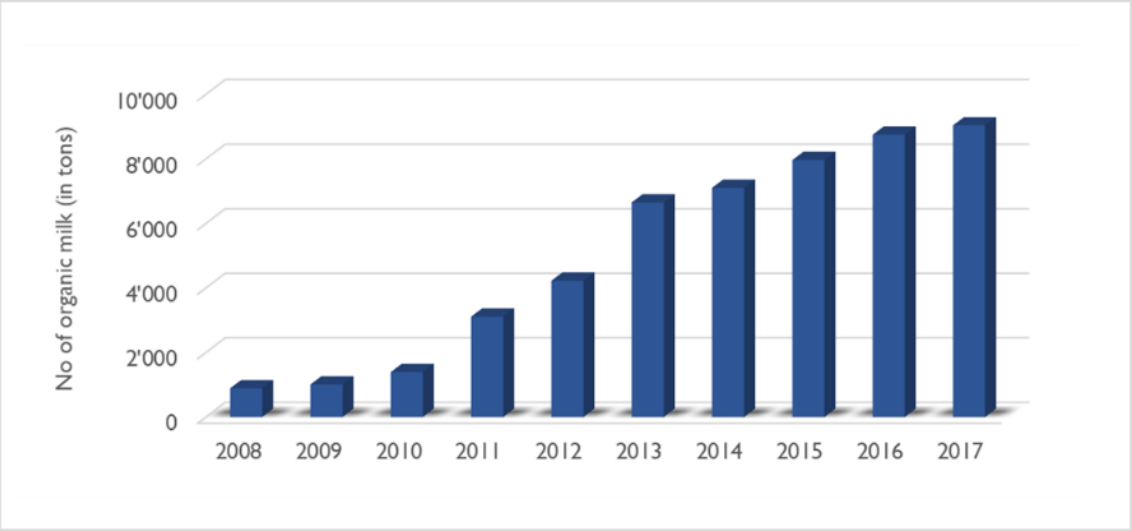
The sharp increase in the numbers of Ukrainian farms that converted to organic production in 2016—more than 150 within one year (see Figure 2)—was caused mainly by the strong devaluation of the Ukrainian Hryvnia (UAH) in 2015 (see Picture 3). The devaluation of the UAH made Ukrainian exports internationally more competitive. At the same time, as the exchange rate made imported inputs more expensive, the organic sector benefitted additionally, for not using these inputs. Consequently, the devaluation of the UAH attracted the interest of potential importers, who increasingly saw Ukraine as a highly competitive potential producer of organic produce. Moreover, the Association Agreement signed in June 2014 between the EU and Ukraine led to a reduction in trade barriers and benefitted greatly the export business to the EU. Additionally, the Deep and Comprehensive Free Trade Area (DCFTA), which forms part of the Association Agreement, went into effect in January of 2016 (QueS et al. 2018).

In regard to the domestic market, the Organic Market Development Project supported three dairy Leader Farms in improving their management practices so as to increase milk quality and develop a diversified product range. However, the development of the organic dairy sector—unlike arable crops—suffered a setback resulting from the political and economic crises that began in 2014. Dairy producers lost access to the Russian market, their main export market, and income levels among consumers declined (Guenther et al. 2015).

Despite this difficult situation, the production of organic milk continued to increase, though at a slower rate (see Figure 3). This growth was due to Leader companies' important investments into processing infrastructure and marketing activities to increase the penetration of organic dairy products in the domestic market. Also, the launching of the first organic ice cream under the Rud TM in 2016 (see Picture 4) has helped to sustain the demand for organic milk.

Picture 4 Organic Icecream by Rud

Figure 3 Production of organic certified milk on three Leader Farms from 2008 to 2017[16]



Source: FiBL Kyiv office

In regard to developing a conducive business environment for the organic sector, the Organic Market Development Project continued to boost domestic market development through awareness creation, promoting networking activities, and supporting policy dialogue with the objective of (finally) getting the national organic law in place, together with all needed regulations. Importantly, the Ukrainian law on basic principles and requirements for organic production, circulation, and labelling of organic products 2496-VIII was adopted on 10.07.2018 by the Verkhovna Rada of Ukraine (the Ukrainian Parliament), signed by the President of Ukraine on 30.07.2018, entered into force on 02.08.2018 and it shall apply from 02.08.2019.

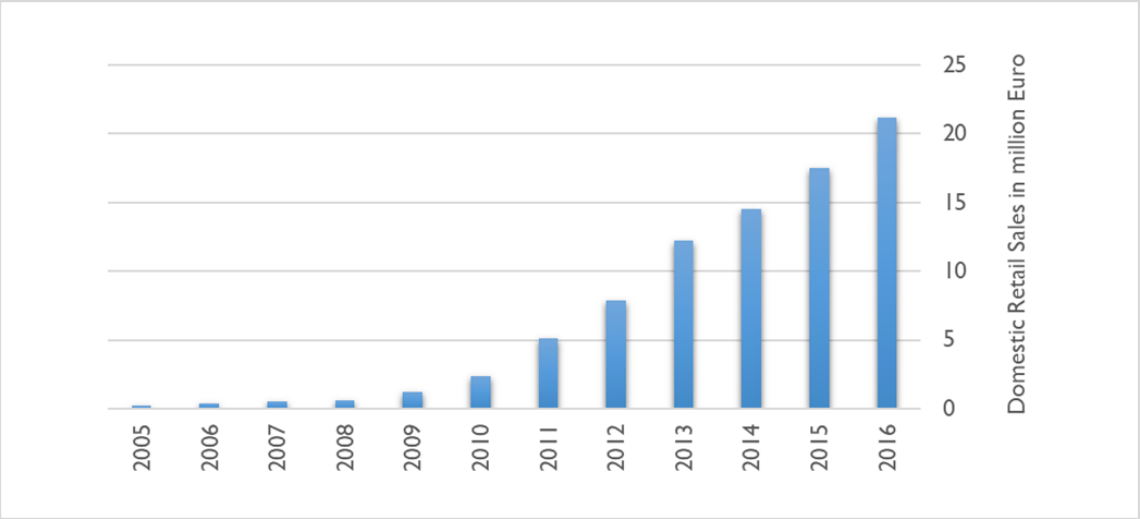
Picture 5 Ukrainian National Logo

The project also supported the development of the national organic logo (see Picture 5) upon MoAP's request, an initiative led by the Information Center '*Green Dossier*' and *Organic Ukraine Public Union*. The logo would be used for the labelling of organic products within Ukraine according to the Ukrainian organic regulation (Trofimtseva & Prokopchuk 2018). Yet, as the national organic law is still not in place, at this stage, the logo is not yet used for labelling, but only for promotional purposes.

All project activities supporting the conducive business environment, including policy development and awareness creation, contributed somehow directly and indirectly that also organic retail sales continued to grow steadily during the project's Phase II—with a yearly growth rate of around 20% (see Figure 4).

[16] Data is from the three dairy companies: Galeks-Agro, Ethnoproduct, and Staryi Porytsk.

Figure 4 Domestic organic retail sales 2005 - 2016



Source: Organic Federation of Ukraine.

The Organic Market Development Project also supported various service providers, to strengthen their capacity and improve the quality of their services. The service providers that the project has supported include: 'QueS' (export promotion), 'Organic Ukraine' (organic sector development), 'Organic Business' (organic business development), 'Organic School' (training for arable crop farmers), 'Institute of Organic Production' (training for organic operators), 'Ecoterra' (fairs for natural and organic products), 'Green Dossier' (public relations in the organic sector), 'Nature Boutique' (study tours to organic farms), 'Organic Federation of Ukraine' (national organic fairs and organic sector events, organic magazine), VIP Group (export activities), BioLan Association (conference on organic), Skvyrska Research Station and Agroecology Farm (organic field days), and Sib-Agro (arable crop extension).

By 2018, the Ukrainian organic sector remains dynamic (see Table 3). Increasingly, the Ukrainian export business involves organic operators that focus on processed products, i.e. not only raw material exports.

Table 3 Development of the organic sector 2014 to 2016 – number of organic operators

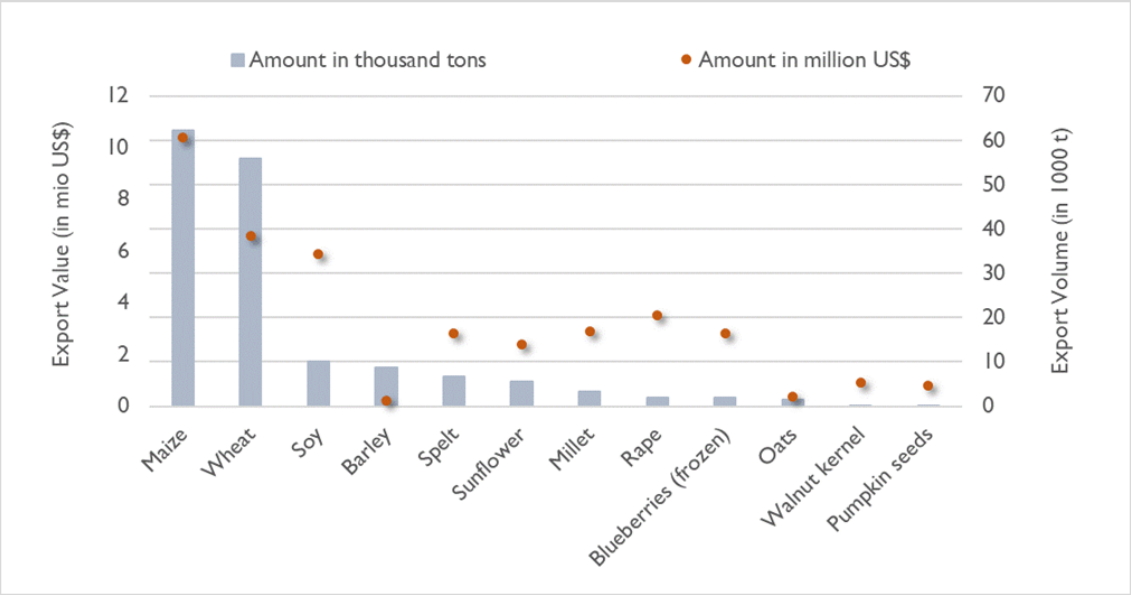
Year	2014	2015	2016	Growth 2014-2016
Crop producers (incl. wild collection)	74	155	261	68%
Livestock producers (incl. beekeepers)	15	22	42	91%
Aquaculture producers	--	2	2	0%
Food producers	38	51	83	63%
Total*	**107**	**202**	**342**	**69%**

* *Note: Some operators are certified in several activities*

Source: Organic Standard survey.

This trend of shifting increasingly towards processed products for exports is also noticeable in the context of Biofach: the majority of exhibitors at the Ukrainian Pavilion at Biofach 2018 were involved in some sort of processing as part of their business venture. Nevertheless, exports of raw material continue to be most important (see Figure 5), with an estimated value of 53 million Euro in 2016.[17]

Figure 5 Export value and volume of main crops/commodities by operators certified by Organic Standard in 2016



Source: Organic Standard.

All in all, the (new) EU import rules applied to Ukraine and other 'risk countries' since 2016 hamper export procedures; these imply additional product sampling for pesticide residue screening—creating an additional burden for both Ukrainian exporters and importers, and reducing the attractiveness of Ukraine as a supplier of organic raw materials (QueS et al. 2018).

On the domestic front, the economic crises still affect the purchasing power and behaviour of consumers, with the consequence that retailers' propensity to invest in promoting organic products in their stores is rather low. Nevertheless, these investments are likely to increase once the national organic law is set in place, ensuring the protection of organic products in the domestic market.

[17] There are no statistics available about organic exports from Ukraine except an estimate by Organic Standard for 2016, based on a survey of exporters.

3. Findings relating to the development of the organic sector and its competitiveness

3.1 Expected future sector development

In order to anticipate future development trends for the Ukrainian organic sector, we looked at the statistical data that document how the sector has been evolving, especially since 2015, and compared this information with stakeholder perceptions and expectations. These data show that arable crops, as raw materials, remain by far the largest export category, in terms of volume and value, and exhibit strong growth (see Table 4). As the demand for organic animal feed is growing rapidly in the developed world, both Europe and increasingly the US are likely to be future key markets for Ukrainian exports.

Table 4 **Exports of organic produce from Ukraine by operators certified by Organic Standard 2014 to 2016 (in thousand tons)**

Export Crops	2014	2015	2016	Growth Rate 2015-16
Maize	0.36	13.24	62.33	371%
Wheat	0.11	24.63	55.91	127%
Soy	-	3.54	9.97	182%
Barley	-	5.19	8.81	70%
Spelt	4.03	3.84	6.76	76%
Hulled millet	2.95	3.13	3.40	9%
Blackberries (frozen)	0.62	0.46	1.92	320%
Oat	-	0.20	1.46	636%
Millet	0.04	0.33	1.41	334%
Lupine	0.32	0.13	1.12	752%
Buckwheat	-	0.15	0.47	214%
Flax seeds	0.06	0.06	0.20	250%
Coriander	-	0.04	0.07	92%
Total	**8.49**	**54.92**	**153.83**	**180%**

Source: Organic Standard.

Import data from Bio Suisse confirms this trend, of Ukraine having become more important as a source of organic raw materials in recent years, for both human consumption and animal feed (see Table 5). The growing demand for organic soy of European origin (Bernet et al. 2016) has led to significant growth since 2016, which is likely to continue in the near future, even more so as processing companies get involved in organic certification.

Overall exports of cereals have also increased strongly since 2014. However, the reduced imports into Switzerland in 2017 compared to 2016, by minus 44% and involving less Ukrainian operators, may reflect the new export/import procedures introduced by the EU and Switzerland in 2015 for Ukraine and some other 'risk countries' (QueS et al. 2018), which makes trade with these countries less attractive than with other Eastern European countries, for which these procedures don't apply (e.g. Hungary, Romania, and Serbia).

Table 5 Imports of certified organic produce from Ukraine into Switzerland 2011 – 2017 (in tons)

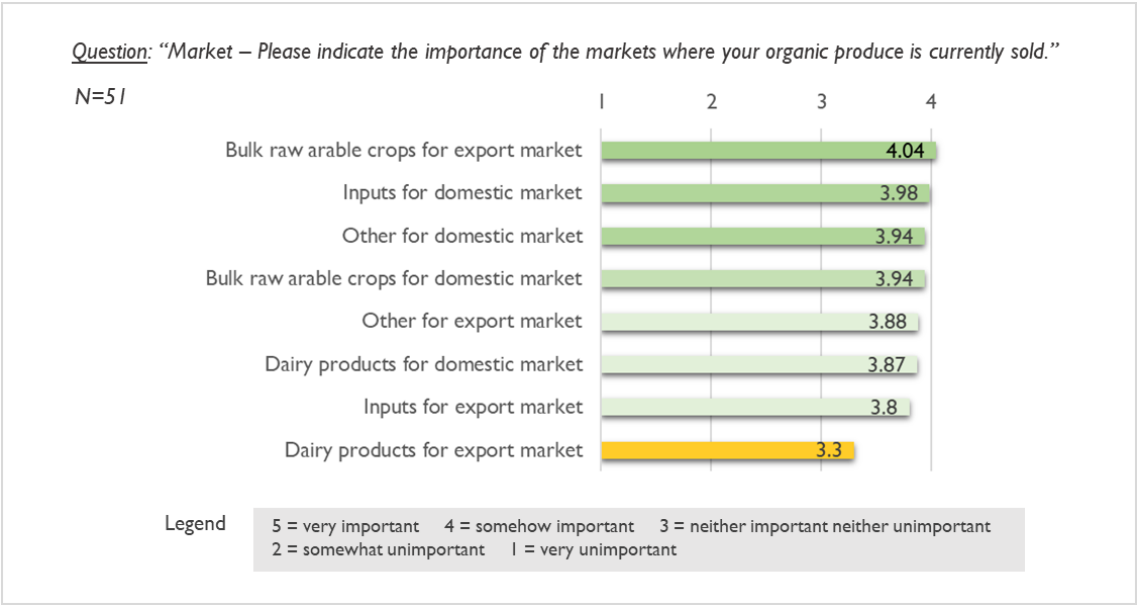
Import Categories	2011	2012	2013	2014	2015	2016	2017
Cereals (spelt, barley, oats, wheat, buckwheat, etc.), human and animal consumption	470	4,064	1,282	1,892	4,264	11,588	6,438
Animal feed (maize, winter peas, rapeseeds/canola, soya, sunflowers, etc.)	-	-	-	-	40	856	3,323
Pulses and legumes, dried (peas, soya)	-	-	-	-	-	-	351
Oilseeds, oils and fats (linseed, sunflower seeds, rape/canola)	-	-	-	-	22	-	159
Food grain (maize and sweet maize)	-	-	-	-	-	798	-
Fruits, processed (blueberries, sea buckthorn purée); flower petals; herbs, frozen	-	-	-	-	17	-	73
Total	470	4,064	1,282	1,892	4,343	13,243	10,344
Number of certified operators	3	1	1	5	16	24	19

Source: Bio Suisse, bio.inspecta and ICB (shared on May 2, 2018)

It is also interesting to note that the first meaningful imports from Ukraine of processed products, with value addition, occurred only in recent years. Although the volumes are still small, this nonetheless implies that Ukraine is already able to offer these product categories internationally and may be in a good position to dramatically expand production and trade volumes if buyers are satisfied with the shipped quality.

Online survey responses from organic producers and input suppliers confirm the relevance of arable crops for exports—although the domestic market is increasingly becoming relevant as a target market for both arable crops and dairy products; the latter is not considered to be relevant export opportunity (see Figure 6).

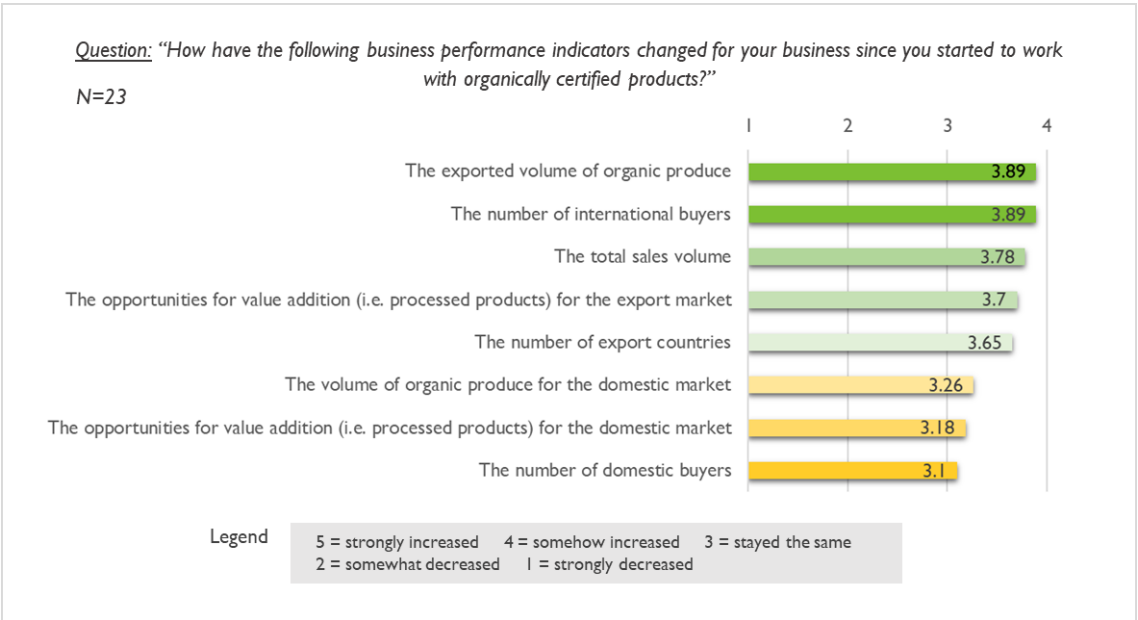
Figure 6 The relevance of export and domestic markets for different organic produce



Source: Online survey data.

The high relevance of the domestic market for arable crops can be explained by the fact that most SMEs don't have own export ventures. They tend to sell to trading companies, buying for export, which they consider to be part of the 'domestic market'. This is also reflected in the traders' responses to the online survey, in which they confirm that they are almost exclusively focusing on the export market (see Figure 7).

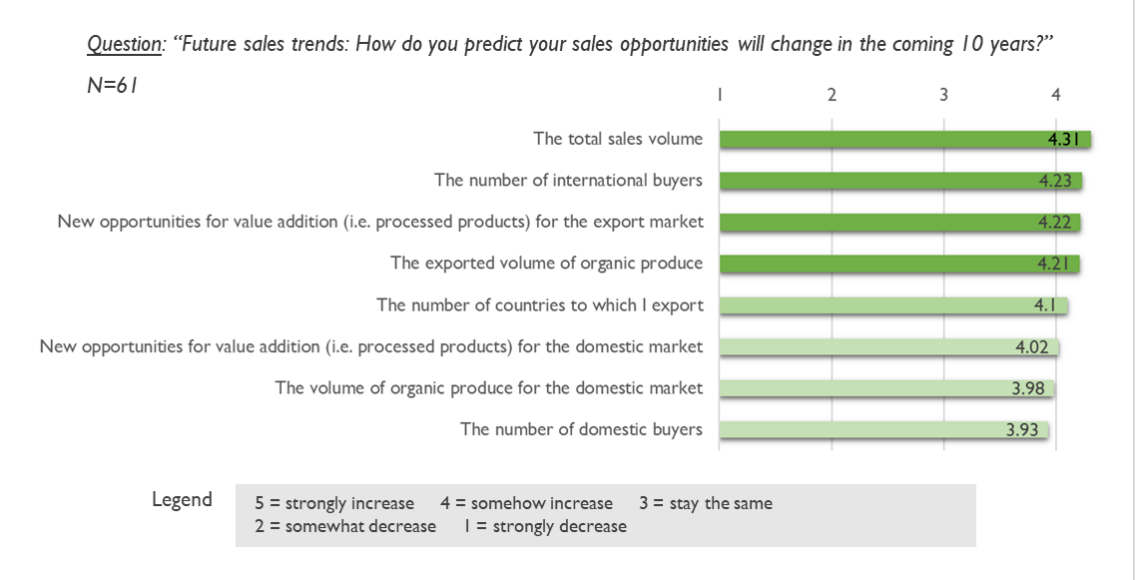
Figure 7 The relevance of the export and domestic markets for traders



Source: Online survey data.

The survey participants anticipate that exports will remain the most important element of their organic sales for the next 10 years, but also expect important new market opportunities to emerge within Ukraine. Especially, they believe that new opportunities for value addition (i.e. processed products) will emerge in both markets (see Figure 8).

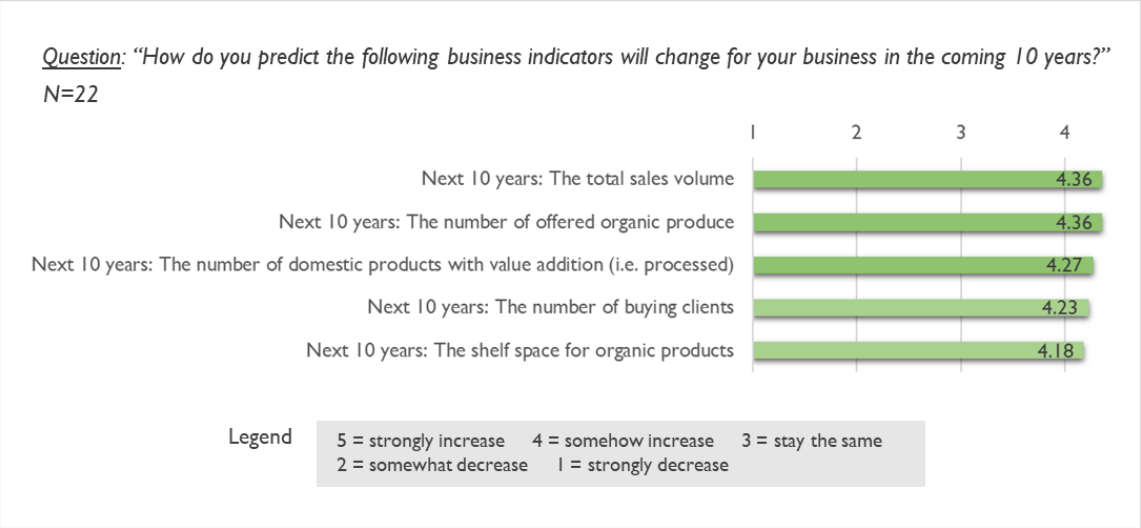
Figure 8 Expected future market trends in regard to sales opportunities



Source: Online survey data.

Retailers also expect a continuation of the positive trend within the domestic market and anticipate strong sales growth over the next 10 years, driven by an increased number of products offered to a growing clientele for organic products (see Figure 9).

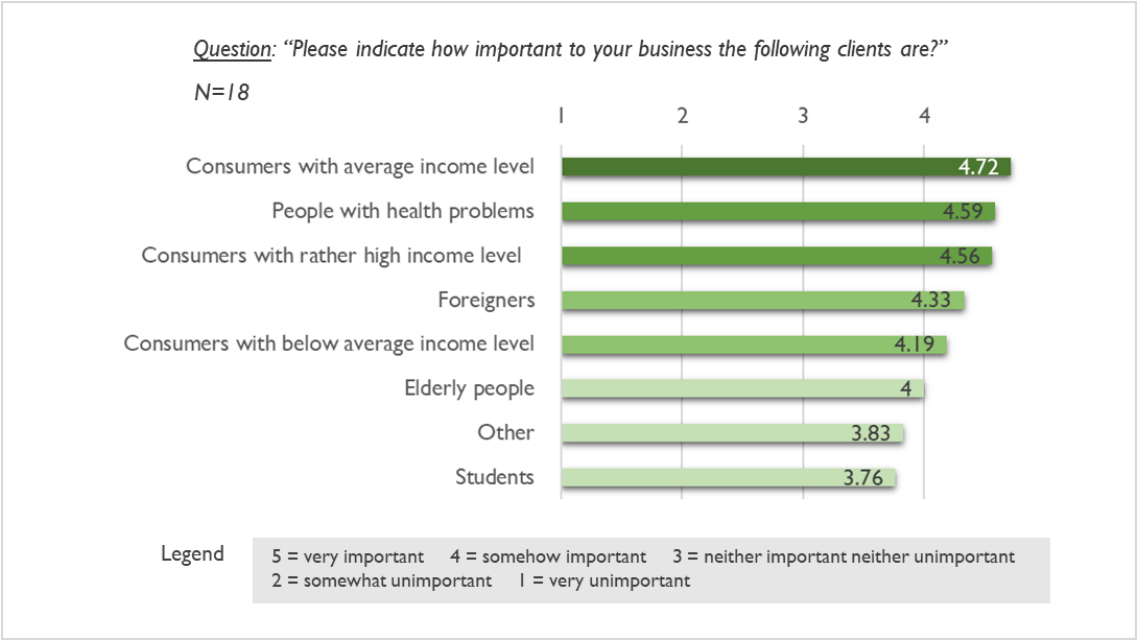
Figure 9 Retailers' expectations about the future development of the domestic organic market



Source: Online survey data.

Retailers note that 'consumers with average income level' are the most important client group for organic products (see Figure 10). Despite the generally high prices of organic products in the domestic market, a meaningful number of 'average income consumers' seem to be aware of the benefits of organic produce and consider such purchases to be a worthwhile investment. It is likely that a large share of these people can also be classified as 'health conscious consumers' who, together with high income clients and foreigners, are important elements in driving organic demand. Elderly people and students are less relevant due to their income constraints.

Figure 10 Retailers' opinions about the importance of different client groups



Source: Online survey data.

3.2 The competitiveness of the organic sector

To what extent competes organic farming in Ukraine with conventional farming? Official statistics in Ukraine[18] don't differentiate conventional and organic farming, so there exists no GDP data on the organic sector, which could be used as a proxy for competitiveness.

One indication for competitiveness, obtained as part of this study, relates to gross margin calculations. Gross margins are useful proxies for profitability at the farm level.[19] Reference data from Ukrainian service providers offers interesting insights about the differences in gross margins for different crops when produced organically and conventionally (see Figure 11 and Figure 12).

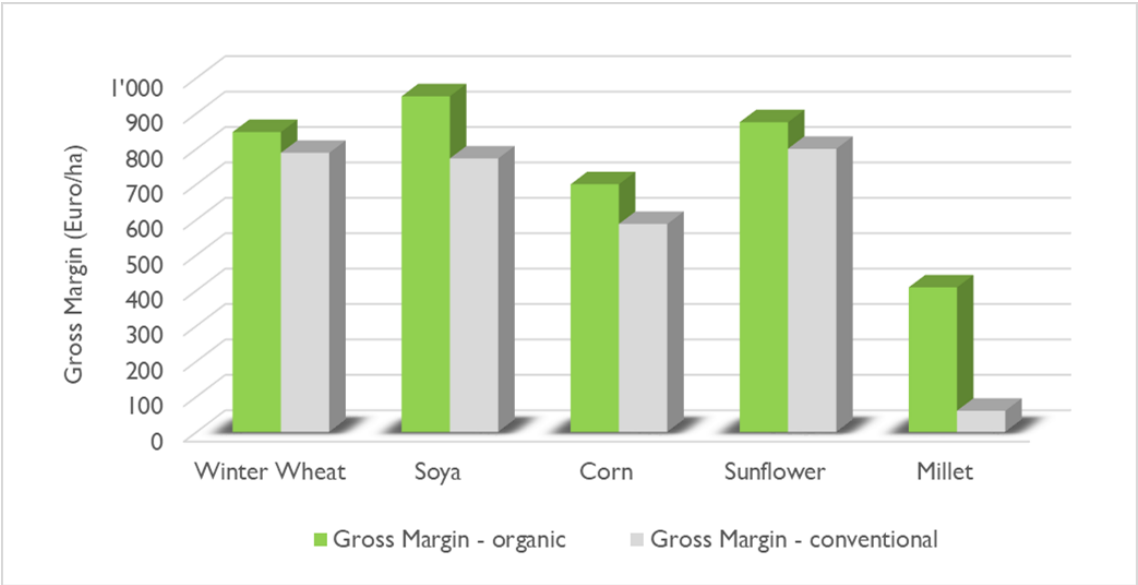
[18] See http://www.ukrstat.gov.ua/
[19] Gross margin = revenue (yield x price) minus variable costs (labour + tractor + inputs), per ha.

For all arable crops and berries, for which they where calculated, the gross margins in organic production were higher than in conventional production. The one exception related to the only vegetable crop: garlic. In this case, organic production techniques are not yet at a level where they are effective at preventing and fighting diseases and weeds, to obtain good yields with relatively low production costs. Ultimately, the price differences between organic and conventional are crucial. With a higher price for organic garlic, this crop would also become a viable option for organic producers; the same is likely to be true for similar crops, including: beans, chickpeas, pumpkins, melons, etc.

For most arable crops, establishing efficient organic production techniques is less of a problem—especially with access to good machinery and knowledge about crop management. With a well thought through crop rotation, good seedbed preparation, and appropriate mechanical weed control, organic producers can obtain a good gross margin.

When analyzing the parameters used for calculating the gross margin especially in arable crops (see Annex 3), it becomes clear that while a higher price compensates for a lower yield, the gross margins in organic systems are largely higher due to lower input costs. In other words, by not using chemical pesticides and fertilizers, organic farmers have fewer overall costs, which implies a higher profitability. Yet, what the calculations do not include is the initial investment, to get through the conversion period, where farmers might only get conventional prices while harvesting less than before. They also do not take into account the costs of organic certification; yet, these are rather low for Ukrainian farms, given their generally rather big size, i.e. between 1 to 5 Euro/ha, depending on farm size and certification body.

Figure 11 Gross margins of selected arable crops grown organically and conventionally

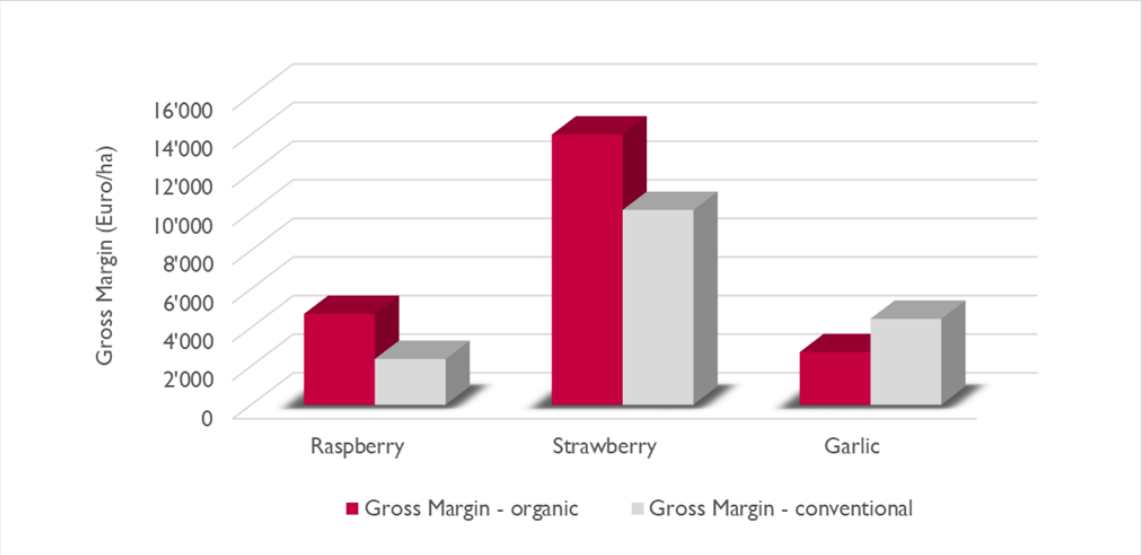


Source: Institute of Organic Production (details see Annex 3).

Organic berry production also yields higher gross margins than conventional production.[20] A closer look at the parameters reveals that this is mainly due to the price difference between the two, as organic farm gate prices are almost double those for conventionally produced berries.[21] This overcompensates for the lower yields, which are around 70% of those in conventional systems (see Annex 3).

However, these gross margins don't reflect the higher risk involved in organic production, which is especially relevant in high-value crops, where organic farmers can face major yield losses as a result of not being able to apply pesticides in case of outbreaks of disease or pests. To prevent such losses, organic berry production requires a higher level of expertise and support services that can help reduce the risk of failure, including access to resistant varieties and good production practices (see also Box 6).

Figure 12 Gross margins for organic and conventional raspberries, strawberries and garlic



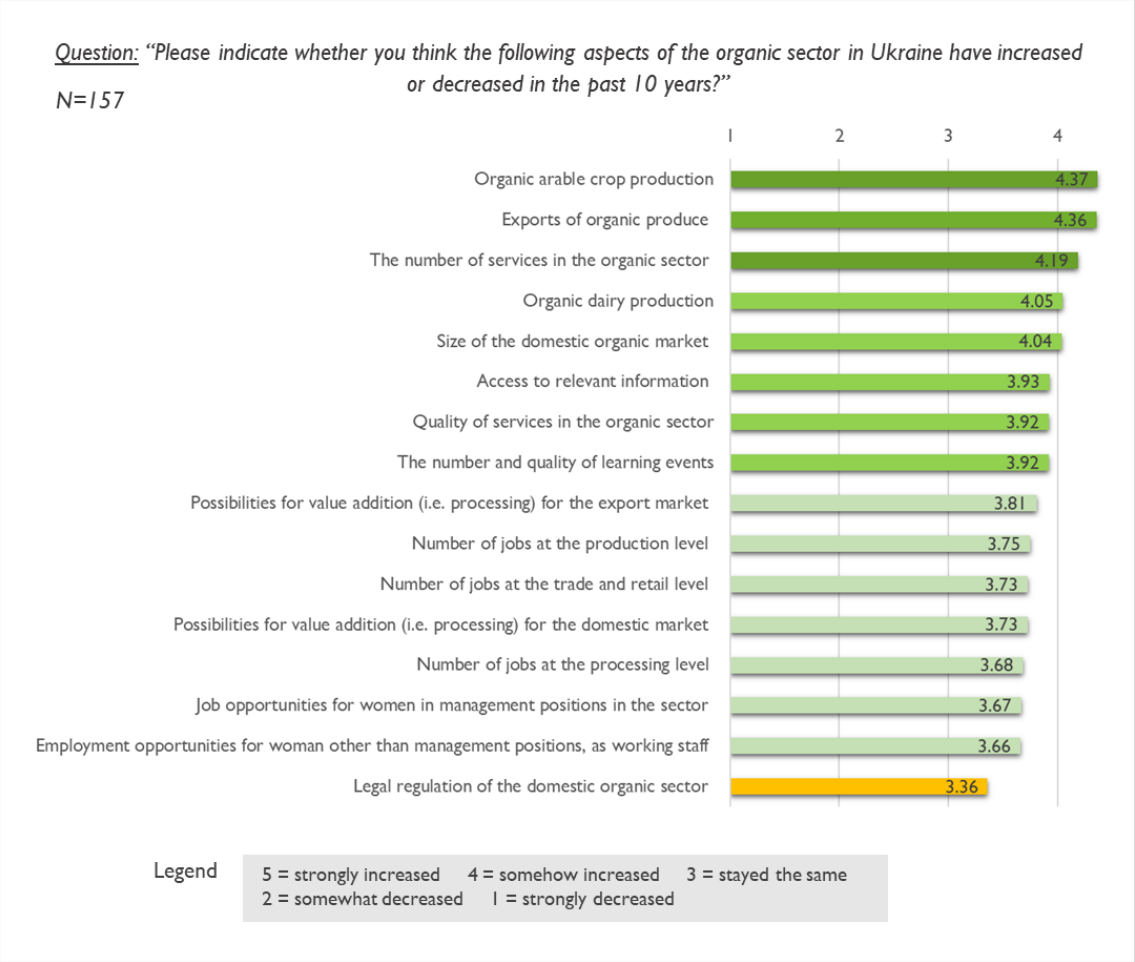
Source: Organic Business (details see Annex 3).

Responses from the online survey revealed interesting information about how sector stakeholders perceive the competitiveness and development of the organic sector over the last 10 years (see Figure 13). All in all, these responses confirmed that the organic sector is considered to be relatively competitive in several different aspects. This positive view is even more remarkable in view of the absence of an organic regulatory framework and of additional subsidies to organic farmers, which are common in competing countries (especially EU countries).

[20] Organic certification costs were not included in the gross margins calculation. For berry producers, they are at around 50-60 Euro per ha (for farms of around 5 ha); they are insignificant compared to other costs involved.

[21] Organic prices are high because of export demand. Importers mention that Ukraine's organic market is still a 'seller's market', as producers tend to fix the price due to abundant international demand.

Figure 13 Stakeholders' perceptions of the organic sector's development over the last 10 years

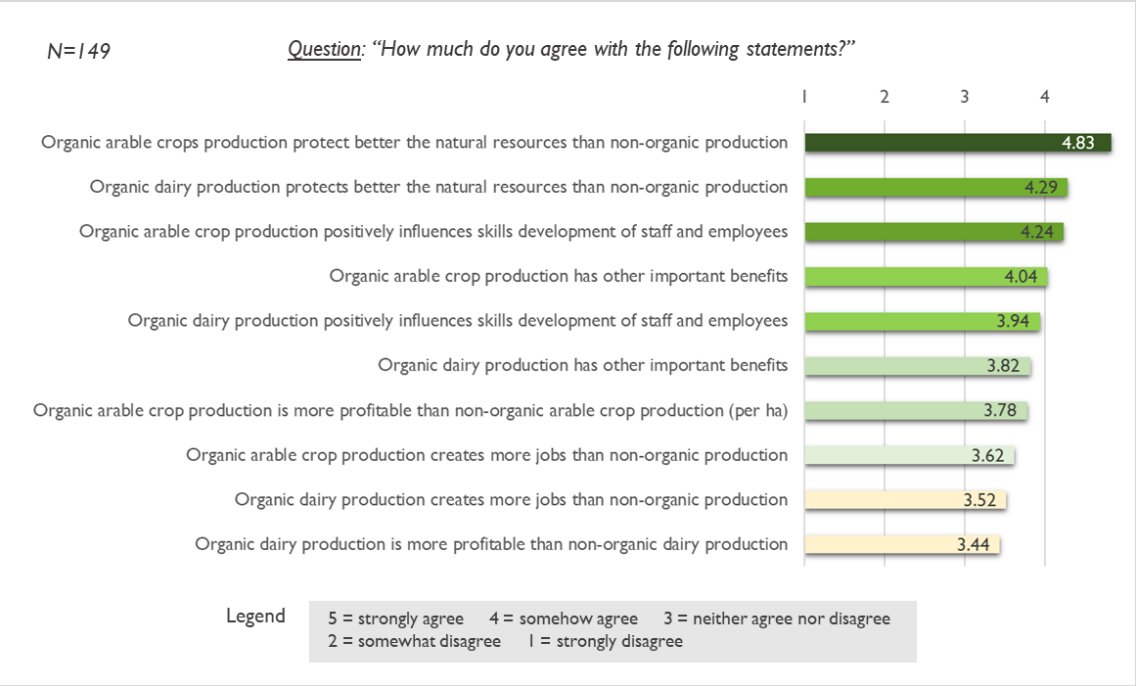


Source: Online survey data.

One question that was not explicitly asked in the survey, but is probably of greatest relevance for the organic sector's competitiveness, has been the capacity building that has taken place in the sector throughout Phases I and II of the project. Altogether, around 450 SMEs have benefited from capacity development activities that were directly or indirectly supported by the project. These enhanced sector stakeholders' capacity in two ways: through gaining knowledge and access to relevant contacts. Both factors have improved their competitiveness and their capacity to be successful.

Survey respondents also attributed further important advantages to the organic sector that go beyond the concept of competitiveness. Most importantly, there is shared conviction among stakeholders that 'organic production better protects the natural resources than non-organic production' (see Figure 14). With a score of 4.83 (out of 5) in the case of arable crops, stakeholders see this as a very important advantage of organic agriculture, going in hand in hand with generating 'other benefits', which relates most likely to improved health effects for both consumers and producers.

Figure 14 Stakeholders perceptions of the benefits of organic agriculture



Source: Online survey data.

3.3 Creation of value addition along the value chain

From a development perspective, 'value addition' is a key concept linked to the idea of 'increasing the value of raw materials through processing, trading, and marketing'. In this logic, it is important to understand at what points in the supply chains, and if, value is, or can be, added. From a development perspective, this is key to potentially optimizing value creation in favor of less developed rural areas, in order to create employment and income and drive local and regional development, or prevent stagnation and decline.

However, in many cases value addition may involve the adoption of modern, time saving technologies – especially in industrial processing – so the 'value addition' concept is not necessarily a good proxy for employment generation. In the context of organic agriculture, it can be a useful proxy for competitiveness (see previous chapter) – for a business, sector, or region – as value addition goes hand in hand with good practices not only in production but also in post-harvest activities, including storage, processing, trading and marketing. In short, the extent to which value addition creates employment, in both the short and long term, can vary greatly. Thus, employment generation requires a separate assessment (see next chapter).

In Ukraine, there has been a recent shift from mainly producing organic raw materials for export towards also producing added value products for both the export and the domestic market. This is consistent across the different sectors covered by this study. In

regard to exports, value addition is becoming more important as considerable investments are being done by producing and exporting companies to upgrade the quality of their produce together with improved communication and services[22] in order to obtain better market prices. Such investments and improvements explain the strong export growth, for instance, of Granit Agro (see Box 3) and Agroecology (see Box 2).

However, as a large share of the Ukrainian organic export business in arable crops involves raw materials for the feed industry, value addition opportunities are constrained for these export ventures. One exception relates to soybeans for the feed industry, where European importers have a strong interest in importing press cake rather than whole soybeans.[23] Ukroliya became the first Ukrainian company to enter this market when it obtained an organic certificate in 2017 to export organic soy and sunflower press cake (Ques 2018).

There are also limits on the value addition potential of Ukrainian products destined for human consumption, such as processed cereals (see Box 4). Here, buyers are interested in sourcing (cheaper) raw materials to process in the manufacturer's facilities, partly in order to have better quality control. The situation is similar for oil crops (see Box 5). For export, equally difficult are sales of own labeled products, given the fact that market introduction of these products would require important additional investments.

Different is the export business for berries, as showcased by Kyivskyi ASC (see Box 6). Because berries are highly perishable, processing is a must. Yet, this involves acquiring expensive infrastructure and sophisticated processing technologies in order to conserve the berries and enhance their shelf life. Introducing such technology can create important added value for producers, enabling them to sell bigger volumes of berries to a market that pays high and stable prices. The same is true for wild collection products, in general (see Figure 18), and the cultivation of medicinal herbs and spices (see Figure 19). In all these cases, adequate processing infrastructure is a necessary precondition to create a feasible business venture for producers and link up successfully with international buyers, who demand high quality products.

In any case, the steady increase in the production of organic arable crops has triggered interest among existing processing companies to become involved in the organic business, as well. A good example is the large oil processing company Ukroliya, which for the first time participated at Biofach in 2018 seeking new clients for its new organic product line (Ques et al. 2018).

[22] Based on personal communications with buyers during Biofach.

[23] Soy is mainly imported for protein, for feed mixes. By importing soy press cake only, lower processing costs are involved and the buying company does not have to bother with processing activities for oil extraction and find a market for the (soy) oil that is of low demand.

Although export related value addition opportunities are increasing from year to year, for most smaller companies, the domestic market seems to offer more opportunities for value addition. It is possible to enter the domestic market with smaller volumes and to create an own brand, both of which are a big advantage for smaller companies initially entering the market and with limited production and supply capacity. Yet, as retailers treat organic products in the same way as conventional products—making them pay product entry and marketing bonus fees—entering the domestic market still requires significant investment, which is a problem for small companies.

Despite the limited size of the domestic market (see Figure 4), it already provides good opportunities for companies to market their organic produce and to develop brand value for their products and companies. As domestic sales continue to increase, they are likely to be able to capitalize upon this brand value in the near future. The portfolio of organic products produced and sold in Ukraine in 2016 was already considerable (see Table 6).

Table 6 Overview of main product groups and producers for the domestic market in 2016

Category	Type of Products	Producing Companies
Milk & milk products	Milk, butter, kefir, fermented baked milk, sour cream, yoghurt, cream, cottage cheese, hard/semihard cheese, soft cheese (suluguni, Adygea cheese, Caciota, ricotta, bryndza), ice-cream	Ethnoproduct PrJSC
		Organic Milk LLC
		Staryi Porytsk LLC
		Zhytomyr Butter Plant PJSC
Meat & meat products	Different sausages, minced meat, paté, semi-finished **meat** (pork, beef/veal)	Filvarok-KZ FE
		Organic Meat Product LLC
		Ethnoproduct PrJSC
		MML Holding LLC
Cereal products	Groats (buckwheat, maize, barley, pearl barley, semolina); hulled millet, mung bean, chickpea; flakes (oat, buckwheat, barley, wheat, millet, maize, pearl barley, rye, rice)	Groceries Factory LLC
		Skvyrskyi Grain Processing Factory Ltd
		Firma Diamant LTD
		Organic Original LLC
		Galeks-Agro PE
Oil/fats	Sunflower, flax, mustard, rape, maize, sea buckthorn, holy thistle, hemp oil; watermelon seed, black cumin seed, amaranth seed oil, etc.)	Organic Original LLC
		Firm Casper Ltd
		M Plus Group LLC
		Richoil PE
		Elitphito SPC PE
Canned products	Syrups and jams (bilberry, blackberry, blueberry, etc.); berry paste; porcini mushroom	Dzherela Karpat LLC
		Pan-Eco LLC
		Di-Line Grup Ltd
Juices & drinks	Juices: birch sap, apple, apple and carrot, apple and red beet, apple and blackcurrant, apple and pumpkin, birch and apple, etc.; bilberry fruit drink	Dzherela Karpat LLC
		Liluck LLC
		Golden Parmen FE
		Pan-Eco LLC

Bakery & pasta, flour	**Rye, wheat bran; flour (wheat, buckwheat, maize, spelt); cookies, gingerbread, bread (wheat, rye, buckwheat, maize, ciabatta); pasta products**	**Khlibio Trade LLC**
		Firma Diamant LTD
		Organic Original LLC
		Skvyrskyi Grain Processing Factory Ltd
		Confectionary workshop "Kvartet" Ltd
		La Farina LLC
		Pasta Factory "Grain of Life" Ltd
		Terlych LLC
Confectionery products	Chocolate, chocolate products	Kolchanov Dmytro PE
		Confectionery factory "Sweet world", LLC
Tea & drinks	Herbal tea, phytotea, rosebay willowherb tea, black/green tea	Zhyva Zemlya Potutory LLC
		Phytosvit LTD
		Molfar Eco LLC
		Monomakh PJSC
Herbs & spices	Cinnamon, marjoram, oregano, laurel leaf, basil, salad herbs, Italian herbs, herbal salt	Nova-Pack LLC
		Sumyfitofarmacia LLC
		Zhyva Zemlya Potutory LLC
Apicultural products	Honey	Galeks-Agro PE
		Organic Original LLC
Fruit & vegetables	Watermelon, melon, white cabbage, onion, tomato, cucumber, potato, lettuce, carrot, red beet, pumpkin, sweet pepper, beans, garden radish, peas, grapes, bog blueberry, bilberry, blackberry, raspberry, strawberry	Danube Agrarian LLC
		Organic Original LLC
		Sabelnikova Valentyna PE
		Burnaieva Yulia PE
		Marchenko A.M. PF
		Lybid-K Ltd.
		Romanchenko O.A. PE
		Tregubov O.A PE
		Perlina Strumka FE
Eggs	Chicken eggs	Lybid-K Ltd.
		Kovtun Y.O. IE
		Danube Agrarian LLC

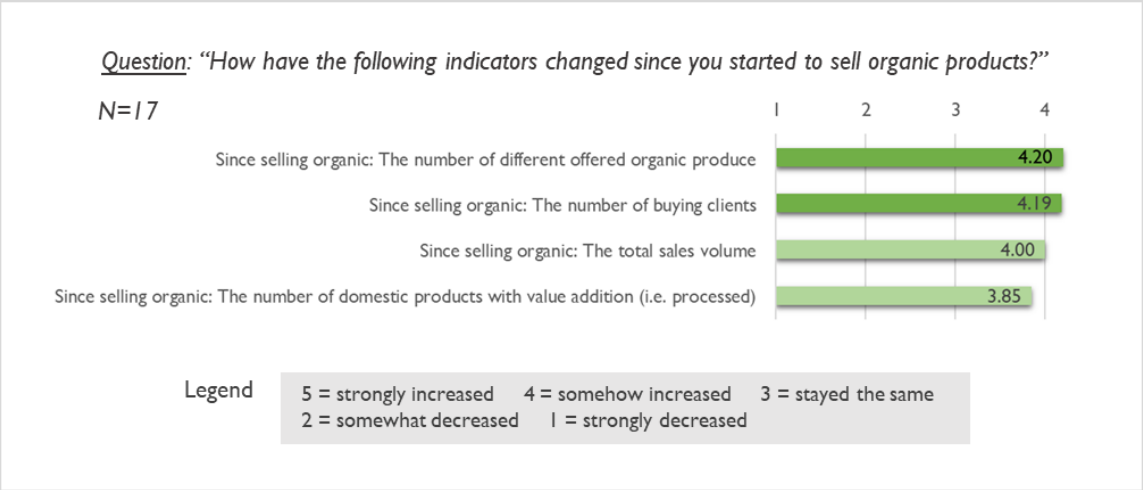
Source: Organic Standard

However, as retailers have not seen organic sales skyrocking in recent years, they have invested little in promotional activities, making organic suppliers or specialized distributers such as Biologic.tv pay introduction and promotion costs for new products.

On the other side of the coin, Natur Boutique and Good Wine *whose* outlets target more upper-class consumers, have an important role in helping position organic products as high quality products.

In any case, the survey responses from retailers confirm that the domestic market is developing very quickly and that the number of organic products available in Ukraine has increased greatly over the last three years (see Figure 15).

Figure 15 Retailers' assessment of their organic sales



Source: Online survey data.

3.4 Employment effects and gender implications

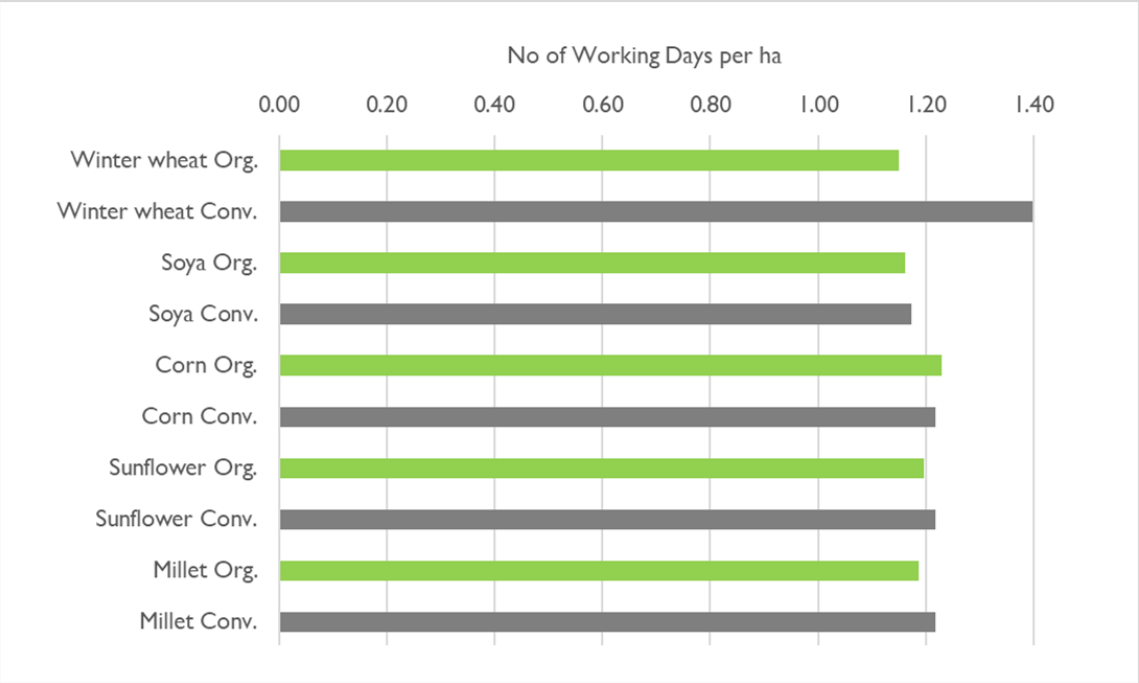
According to the survey responses, sector stakeholders agree that 'organic agriculture creates more jobs than non-organic agriculture', yet only by a narrow margin (see Figure 14). How does this perception relate to other findings in this study? Here, one needs to clearly differentiate between the employment effects at the plot level (i.e. comparing employment effects per hectare), and at bigger scales (i.e. at the local and national levels).

For the plot level, a closer look at gross margin calculations helps provide a clearer picture of whether organic production generates more employment than conventional production. For arable crops, relating to agro industrial conditions, gross margin calculations reveal that labour requirements tend to be slightly lower per ha than in conventional production (see Figure 16). The reason behind this is that organic systems use less labour for crop treatments (i.e. application of fertilizers and pesticides)[24]. By contrast, more labour is used in 'tractor hours', because of the extra efforts needed for soil preparation and mechanical weed control (see Annex 3).

When calculating labour use per ton of produce, the situation changes slightly. Because of lower organic yields, the employment generated per ton of produce is slightly higher in organic systems.

[24] Much more labour is required in organic arable crop production when mechanical weed control is not well managed, because of inadequate knowhow and machinery. Since the higher increased labour costs drastically reduce profitability, farmers in this situation are likely to abandon organic production and revert to applying herbicides.

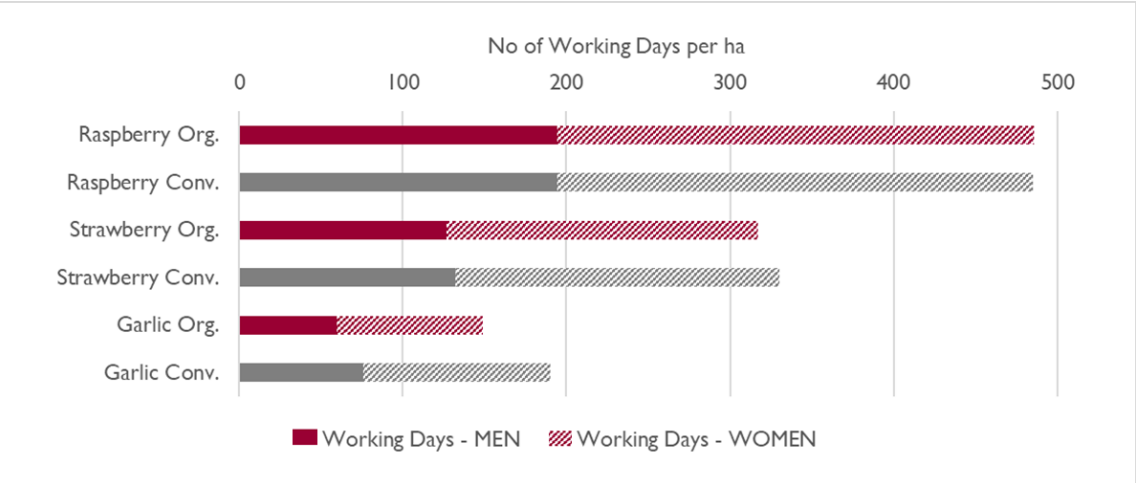
Figure 16 Labour use per ha in organic and conventional arable crop production



Source: Based on data shared by the Institute of Organic Production.

Overall, labour use in arable crop production in Ukraine is low per ha: less than 1.5 working days per ha (see Figure 16). Given the high degree of mechanization (due to large farm sizes) this is true for both conventional and organic cultivation.

Figure 17 Labour use per ha in organic and conventional berry and garlic production

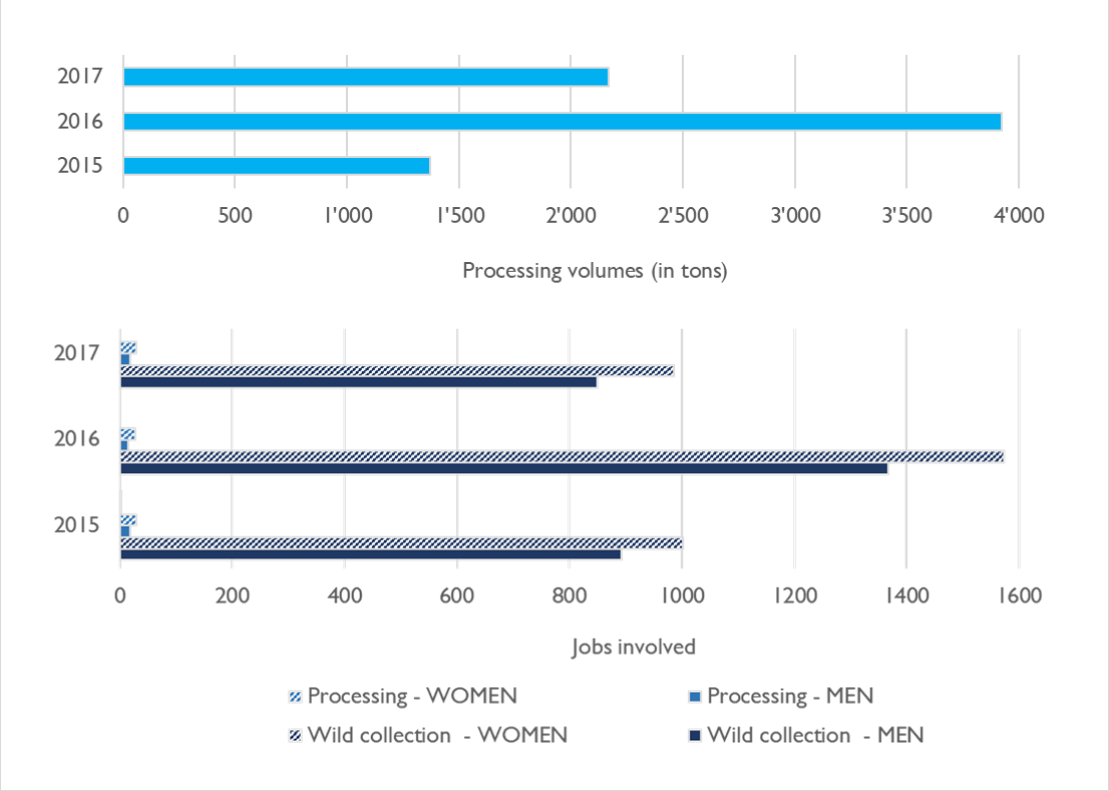


Source: Organic Business.

Berry production is a very different case. Labour use is very high, as it involves a lot of hand labour: almost 500 working days per year for raspberries, and more than 300 for strawberries (see Figure 17). The relevance of berries to generate employment and income in rural areas is revealed through data shared by Rivneholod, a company that

specializes in processing organic wild collected berries. As a buying company, they create important (seasonal) jobs for 2,000 to 3,000 people every year. Their data show a very clear relationship between yield (i.e. harvested berries) and labour use, and that their industrial processing creates relatively few jobs (see Figure 18).

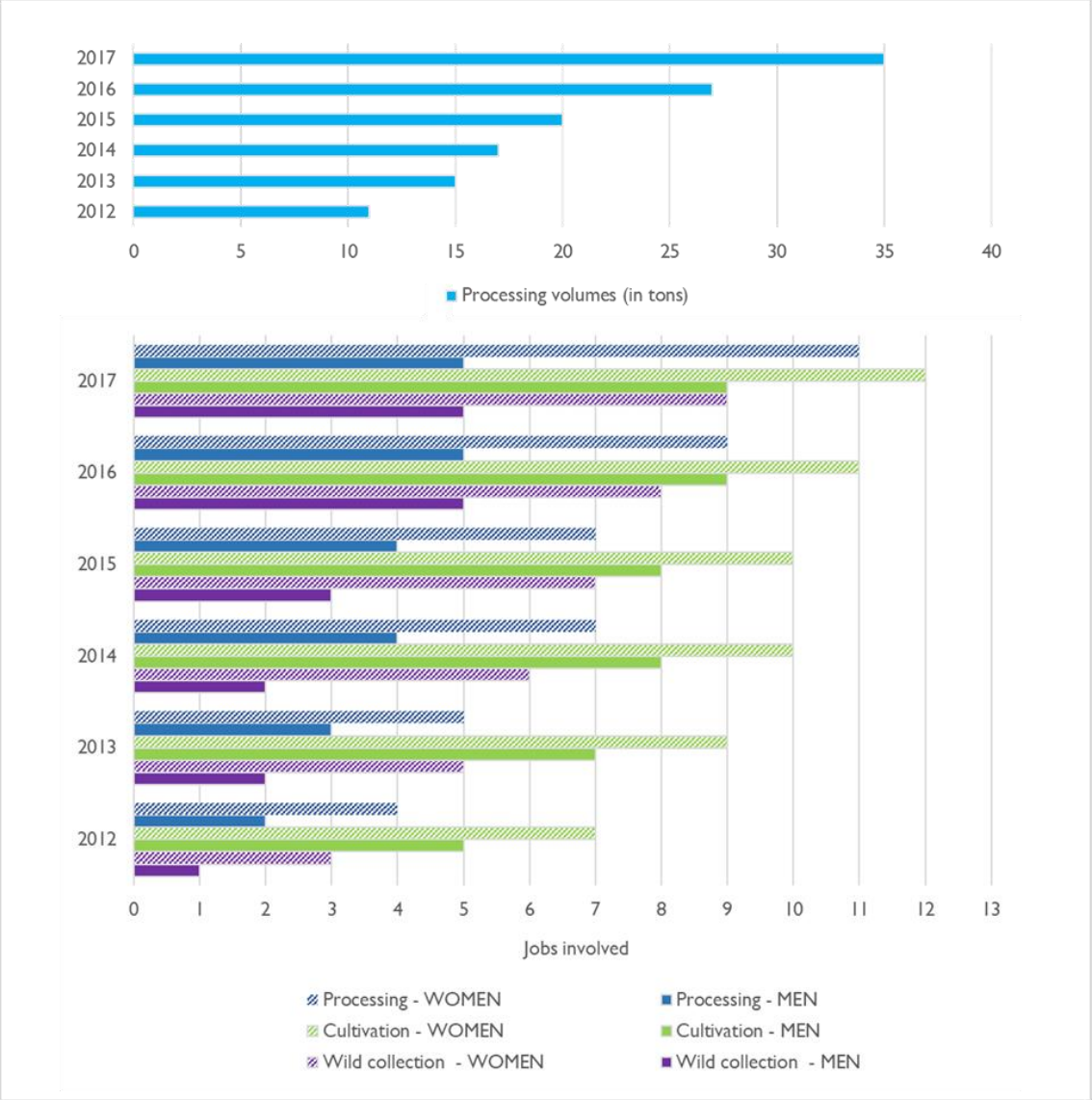
Figure 18 Rivneholod – processing volumes and job creation through collection and processing of wild berries



Source: Rivneholod.

Information from ASC Kyivskyi shows a very similar picture: they also provide important seasonal employment for around 1,000 people among organic berry producers, and around 35 jobs linked to processing and administration (see Box 6). The limited employment effects of industrial processing were also revealed by information shared by Firma Diamant Ltd, LLC (see Box 4), for whom organic processing is only a side business, which created directly only 3 additional jobs. Casper Ltd (see Box 5), a company that processes and markets organic oils, employs 27 people. In any case, the types of products that are elaborated and with what processing technology may imply very important differences in regard to how many and what type of jobs are created and where. Information shared by Phytosvit, a company specialised in growing and processing cultivated and wild herbs, for instance, requires more hand labour in its operations in the field and at the processing level than many big industrial processing companies. This has a highly favourable impact on job creation, especially for women: more than 60% of Phytosvit staff are women (see Figure 19).

Figure 19 Phytosvit – processing volumes and job creation through processing of cultivated and wild herbs

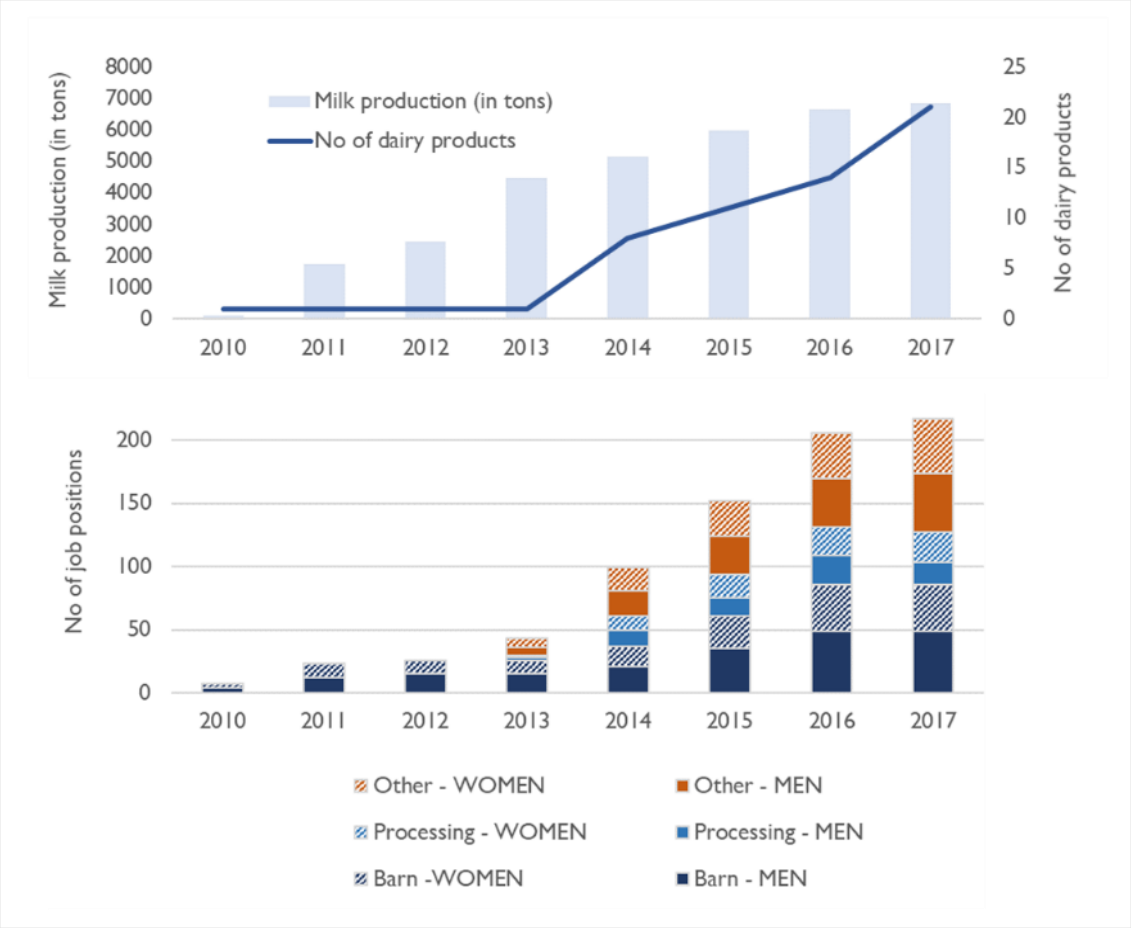


Source: Data shared by Phytosvit.

Highly interesting information about job creation were also shared by Galeks-Agro and Organic Milk (see Figure 20). This case clearly shows that interesting employment effects of organic dairy production are not related to milk production (Galeks-Agro), but to processing and marketing opportunities (Organic Milk) that the growing organic market offers. Thanks to the increased number of products available in the domestic market – 21[25] in 2017 – far more than 100 additional jobs were created. Nowadays, 60% of all jobs relate to processing, marketing, and administration, with only 40% relating to activities linked to animal husbandry. About half of all jobs are filled by women (see Figure 20).

[25] Products with different presentations or packaging size are not double counted.

Figure 20 Galeks-Agro & Organic Milk – processing volumes, number of products and job creation in milk production and processing



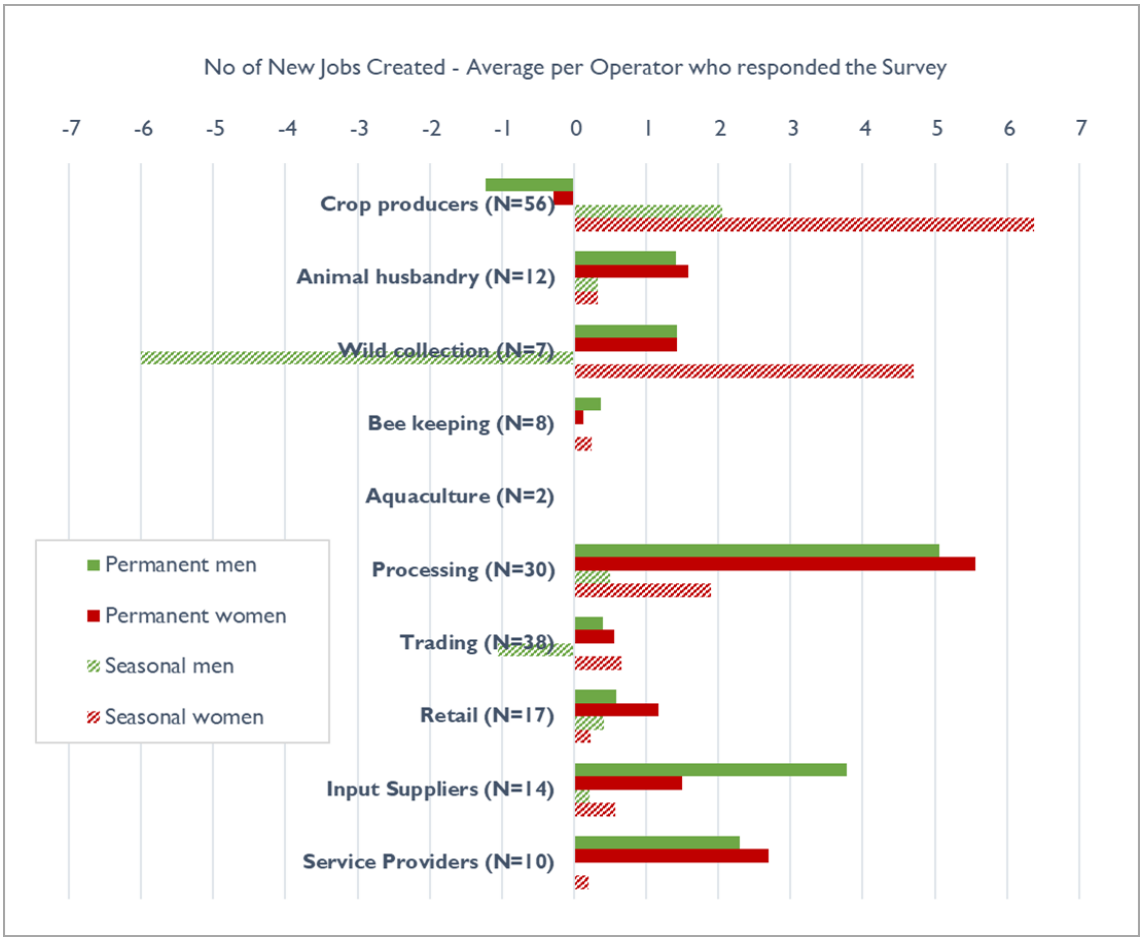
Source: Data shared by Galeks-Agro and Organic Milk.

Online survey responses tend to confirm these findings, although the responses are far from being statistically significant: The information is very much case specific and covers only a limited number of organic operators (see Annex 5).[26]

When calculating the average employment change per operator and 'employment category' (i.e. how many jobs have been created since organic certification started), we see that the patterns are very much crop and activity specific (see Figure 21).

[26] From those who started completing the survey, only around 50% answered the employment questions towards the end of the survey (see Annex 7).

Figure 21 New jobs created among survey respondents 2008–2018



Source: Own calculations based on online survey data.

- **Crop production**: Since both arable crops and berry cultivation are included in the same category, the interpretation of these results must be differentiated. In the case of berry cultivation, which has grown rapidly in recent years, there was a strong increase in seasonal labour since organic conversion, with more than 8 additional seasonal jobs created per company (see also Box 6). In contrary, there was a slight decline in permanent labour (minus 1 job per operator) in arable crop production, where labour requirements have tended to decline with improved crop rotation, soil preparation and mechanical weeding. Often, the increase in efficiency is due to enhanced knowledge linked to investments in better machinery.
- **Animal husbandry**: Employment effects in this category relate mainly to the expansion of organic milk production, going hand in hand with an increased number of cows and more labour use. The increase of around 3 permanent jobs per operator since organic certification seems meaningful, even more so as additional jobs are created through the expansion of processing (see also Figure 20).

- **Wild collection**: It is interesting to note that seasonal male labour has been mainly replaced by female labour since organic certification. This may be due to men tending to migrate for better work opportunities to other regions, upgrading the role of women especially for seasonal jobs. The finding that employment did not increase since starting the organic business might well be explained by the poor harvest in 2017, the survey's reference year, which needed less labour than previous years (see Figure 18).
- **Beekeeping:** Beekeeping generates relatively few jobs, compared to other agricultural businesses. Yet, there has been a slight increase in employment since operators became organic, and this is probably related to business expansion.
- **Aquaculture**: There are only two organic aquaculture businesses in Ukraine and both of these converted very recently. Until now, there have been no employment changes in these businesses.
- **Processing**: This a very dynamic area in terms of job creation. On average, each operator now employs 10 additional permanent and 2.5 seasonal staff, than when organic processing started. This is highly relevant, not only in regard to employment per se, but also indicating that organic raw materials are increasingly being transformed into added value products for a growing market.
- **Trading:** The number of jobs in trading has increased since different companies started trading with organic produce. An interesting feature here is that seasonal male staff positions now appear to have become permanent. There has also been a small increase in (full and part time) female employment, most likely relating to work in administration. Overall, these employment effects are a clear indication of business growth.
- **Retail:** Jobs in organic retail businesses are also growing. On average, stakeholders involved in this area have added 2 new permanent staff since starting with organic retailing. This is a clear indication that 'organic turnovers' are increasing.
- **Input Supply:** There has been considerable growth in employment in this area. The increase of more than 5 permanent staff per operator since getting involved in producing inputs for organic production is meaningful both for income generation and for the provision of technical solutions to farmers. This finding clearly indicates that there is a large and growing demand for technical solutions in the area of organic input provision.
- **Service Providers:** Similar to input suppliers, there has also been strong employment growth among service providers. On average, each service provider added 5 permanent staff since offering organic services. These new jobs are essential for further capacity development among sector stakeholders.

3.5 Impact on capacity and skill development

Survey respondents state that 'organic arable crop production positively influences skills development of staff and employees' (Figure 14). Although this perception seems to apply also for other types of organic crops, expert interviews and focus group findings show a more nuanced picture for different actors in the sector:

- **Business owners and company managers**: These persons and positions have had to face the biggest changes in regard to capacity and skill development. Interestingly, many current owners and managers of organic businesses are new to agriculture. This is true both for managers of the large agricultural holdings and for SMEs, with managers coming from different professional backgrounds, including: construction, furniture production, business and administration. For them, events and trainings supported by the SECO project have been essential, allowing them to increase their knowledge and engage in networks with other stakeholders in order to develop their business. Yet, they say that the most important skills were developed through 'learning by doing'.
- **Agricultural labourers**: The growing number of organic farms has increased the need to hire agricultural labour for organic production. In arable crop production, the most important group is tractor drivers. Yet, similar to other field workers, this group's workload and job requirements are not substantially different than those working in conventional agriculture. This explains the fact why hired labourers on organic farms tend to earn the same as those on conventional farms in the same region. The same is true on organic dairy farms: the new practices required for organic farming are introduced by the farm managers but do not require special skills.
- **Processors and traders**: In processing and trading, the capacities and skills that were relevant to be acquired greatly depended on the commodities involved and whether the company is a start-up business (see Figure 23). Where organic has been 'added' to conventional activities, the additionally required capacities are rather limited. In this case, most important is an in-depth understanding about how to deal with certification-related production issues and procedures. Things are different when starting an organic business, when everything needs to be learned from scratch. Here most of the skills needed relate to the business *per se*, depending much on the products involved (e.g. berries, dairy, herbs).
- **Service providers and input suppliers:** Since these actors are highly specialized in organic know how and practices, the development of their 'organic skills' is of paramount importance. Many of the required skills cannot be 'transferred' as such, but must be built over time. In this regard, SECO's project design with an explicit 'Service Provider Component' has been key in building service provider expertise through its backstopping approach.

Box 2 «Agroecology» Private Enterprise»

Company background and development pathway of the company

«Agroecology Private Enterprise» is one of the pioneers in organic agriculture in Ukraine, founded in 1980, and located in Shishatsky and Zenkovsky districts of the Poltava region. Already in the 1970s, its founder Semen Antonets established organic production practices. Only subsurface tillage was used and chemical inputs (i.e. herbicides and mineral fertilizers) were banned. Over the last decades, the company has created an own model of organic agriculture, integrating animal husbandry and crop production as part of the same production system. Despite of being an organic lead farm in Ukraine, organic certification was introduced rather late, in 2008.

Thanks to organic certification, complying both with the EU and Bio Suisse Standards, the company was able to access the export market since 2014. Participation at Biofach as an exhibitor since 2016 has been key to link up directly with foreign buyers. Nonetheless, also domestic sales remain important, for crops but especially for livestock products (i.e. milk and meat), as «Agroecology» has more than 4'000 heads of dairy cattle and 570 meat cattle animals. As land is rented, the cultivated surface has varied over the years. Currently, in 2018, «Agroecology» manages 6'500 hectares of organic land with highly modern technology.

Occurring value addition activities

The aim of the company is to expand not primarily in terms of acreage but in terms of creating more value with the currently cultivated land. With this strategy, the company has started to take first steps to go beyond selling of raw material, having made important investments into processing and marketing infrastructure. The enterprise has now own grain processing facilities and offers a wide range of processed grain products including winter and spring wheat flour, rye, buckwheat, cold pressed sunflower oil, winter and spring wheat groats, oatmeal, buckwheat groats and ground groats, as well as seeds of different crops for germination and use in health food applications.

In 2017, the company also inaugurated first own «Agroecology» outlets to be able to sell different organic products directly to consumers in Poltava. For instance, a special milk machine enables consumers to fill own containers with fresh organic raw milk. The organic meat sold directly to consumers is about 30% more expensive than conventional meat sold in supermarkets. For the coming years, many more outlets are planned to increase the volume of produce sold directly through own retail stores. In parallel, the collaboration with exclusive supermarket chains, like 'Good Wine', should be expanded to increase the company's turnover through organic retail sales. Important investments are also planned for the meat sector, as the company is eager to establish an own meat processing unit. Also, the company considers to get involved into organic egg production.

Most important for the company's way forward in increasing the value of its produce are the functional partnerships «Agroecology» has with other organic farms and companies located in Ukraine, research institutes within Ukraine and abroad, producers of agricultural machinery, and specialized Ukrainian retailers. These partnerships enable the company staff to learn and

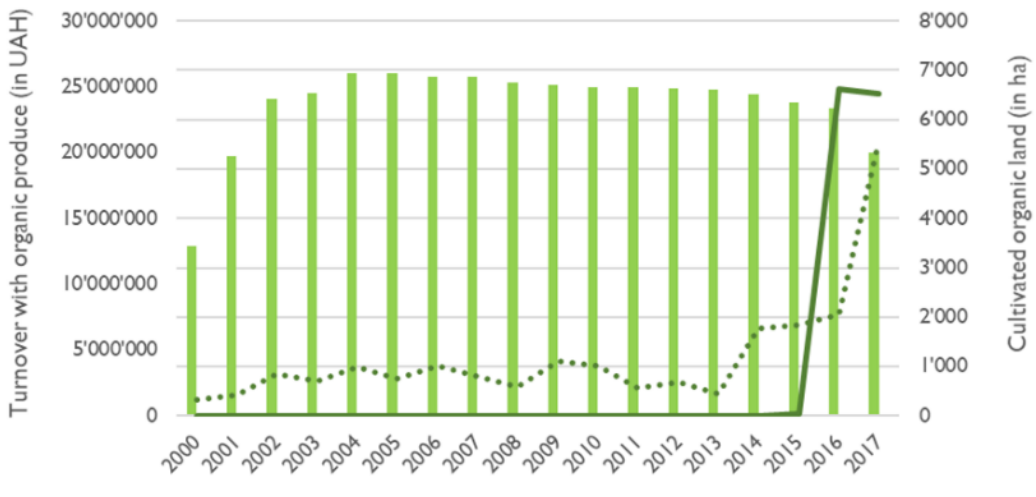
improve. The company has also own training infrastructure and implements field days to support learning among staff and visitors.


Organic field days provide excellent learning for company staff and sector stakeholders

Magnitude and changes on employment

For «Agroecology», the social sphere of the enterprise has always been of high importance. Employees are mostly local residents. They are well remunerated and trained by national and international experts, and thus committed to do their best to keep up the high quality of their work. The company involves both long-term experienced workers and young staff. Because modern time-saving machinery introduced in recent years, less employees are now involved. Yet, with an equivalent of around 115 full time positions, «Agroecology» remains the most important employer of the region, offering attractive jobs especially to the youth, who also benefit from on-the-job trainings. In 2018, 73 young specialists, under age of 30, work in agricultural production at the enterprise.

Development of Land Use and 'Organic' Turnover



Employment*	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Men & Women	177	200	262	257	287	208	202	212	197	150	150	147	141	138	138	145	134	114

* Data relates only to crop production; additional job relate to animal husbandry, processing, and administration.

Source: Agroecology PE

Box 3 «Granit-Agro» Private Enterprise»

Company background and development pathway of the company

PE «Granit-Agro» is a fully organic company that belongs to a bigger consortia called Agroindustrial Group «Arnika». The «Arnika» holding manages in total more than 15'700 ha of land in the Poltava region. The share of organically certified land is increasing every year; in 2017, it reached 40%. PE «Granit-Agro» was founded in 2004, initially as a conventional farm, growing on more than 2'500 ha of land different arable crops, including milling wheat, high protein food and feed soybean, food and feed corn, hemp, and sunflower. It was the growing international demand for organic food and feed crops that led to the decision to fully convert «Granit-Agro» to organic.

After two years of conversion, 2013 and 2014, the company started to sell its products as organic in 2015 and quickly became one of the largest exporters to the European market. Thanks to its certification complying with the EU, Bio Suisse, and NOP regulations, in 2016, the company had first successful export to Switzerland and Germany, and continued to export to these countries in 2017. Overall, the company's participation at Biofach since 2016 was crucial to establish direct contacts to international buyers and ensure good prices for its high quality products.

Occurring value addition activities

The «Arnika» holding is committed to very high quality in all its operations. To rigorously pursue this objective, in the period 2016-2018, more than 10 million Euros were invested for all involved companies to modernize machinery and infrastructure. For instance, these investments allowed «Arnika» to also offer semi-processed products, such as high-quality soybean based feed supplements, and negotiate favorable sales contracts with demanding clients requesting very high quality. Up to now, however, the value adding activities were not yet used in the context of organic. Until 2018, the business of «Granit-Agro» related to raw material sales, which are either shipped by rail (big bags in wagons), road (big bags in trucks), or sea (containers in liner bags).

Relating to agricultural production, «Granit-Agro» has implemented a GPS-based system using bar coding to monitor and trace the production process. Quality control over production and processing is carried out by highly-qualified laboratory employees using highly modern equipment.

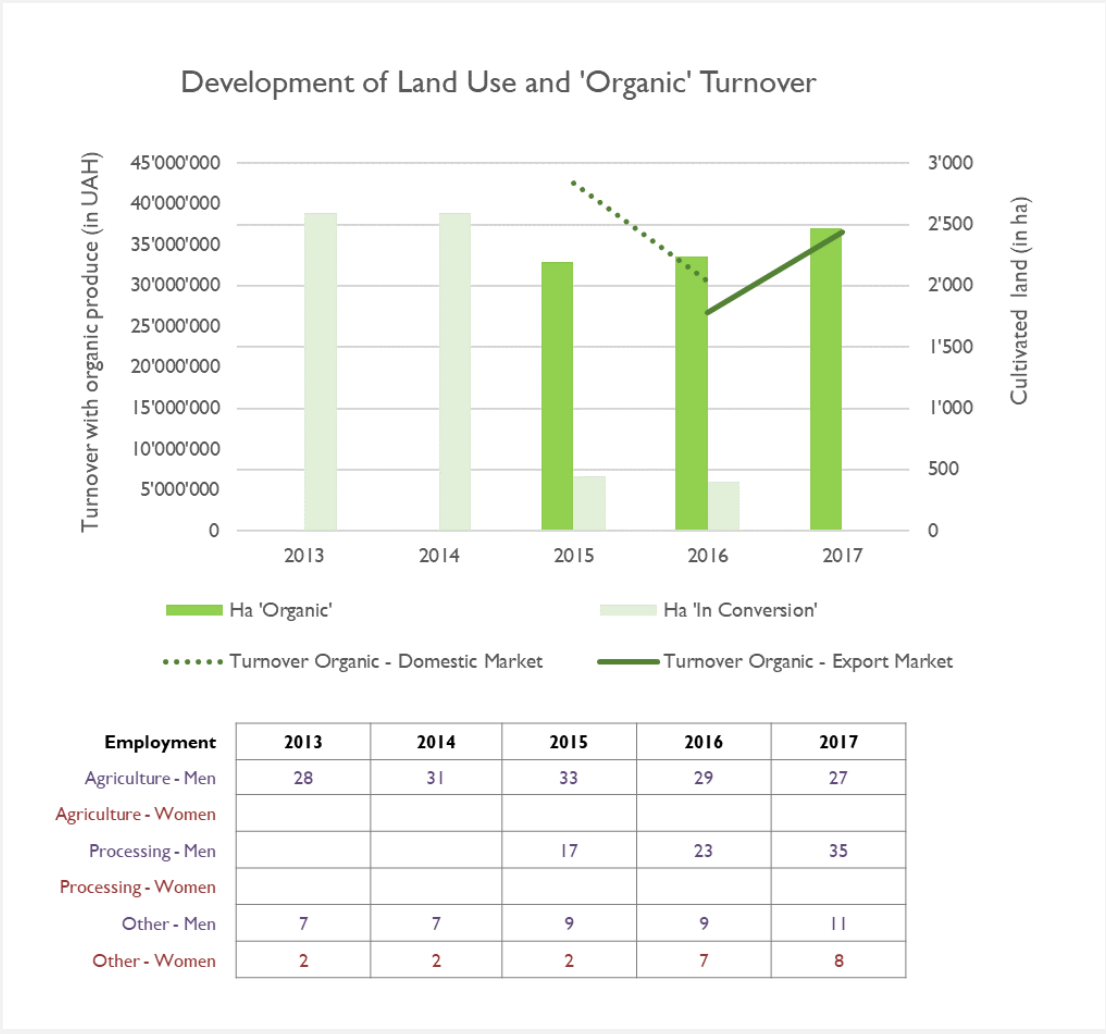
Magnitude and changes on employment

As all operations within «Granit-Agro» are at a very high technical level, only specialized staff is involved. All staff relating to production activities are men; female labour is only involved in administration and management. For being part of the «Arnika Group», «Granit-Agro» is directly linked with the holding's research center involving 12 researchers mainly dedicated to variety selection work and primary seed-breeding of soybeans, legumes and industrial hemp, and to test and help implement effective agricultural technologies.

Overall, both «Granit-Agro» and the «Arnika Group» are interesting employers in the Poltava region, offering also younger staff excellent job opportunities (i.e. jobs with good remuneration and possibilities to learn).


Being part of the «Arnika» holding, «Granit-Agro» operates at a very high technical level to produce best crop quality.

Beyond of being an important employer in the region, «Arnika» contributes essentially to the development and prosperity in the region. Based on constant dialogue with the local communities, the company supports financially local schools, kindergartens, and clinics, cultural and sport institutions, and helps get rural roads repaired, etc.



Employment	2013	2014	2015	2016	2017
Agriculture - Men	28	31	33	29	27
Agriculture - Women					
Processing - Men			17	23	35
Processing - Women					
Other - Men	7	7	9	9	11
Other - Women	2	2	2	7	8

Source: Agroindustrial group «Arnika»

Box 4 Firma DIAMANT LTD, LLC

Company background and development pathway of the company

Firma DIAMANT LTD, LLC was founded in 1990 in Poltava as a company specialized in manufacturing groats and flakes. Equipped with state of the art European processing technology, the company grew fast to become one of the biggest producers of groats and flakes within Ukraine. In 2001, the company was one of the first in Ukraine to have mastered manufacturing instant flakes from cereal crops, selling the produce to other companies being involved in the retail business. In 2008, Firma DIAMANT LTD, LLC launched its own brand “Kozub product" to enter the Ukrainian retail market.

In 2012, the company got interested in organic production, to further expand its ‘healthy lifestyle product portfolio’. After a visit from the side of FiBL and an assessment from the side of a local consultant, the company started in 2013 to develop an organic product line, certified by Organic Standard. The range includes different types of flakes and groats. With the decision to participate at Biofach 2014 as an exhibitor within the Ukrainian pavilion, first export ventures started, while all organic products were already introduced and sold within Ukraine. Especially the sales of organic flakes increased rapidly in the domestic market, but also different types of flour (wheat, oat, buckwheat) were appreciated by consumers in organic quality. Although the conventional business is still much bigger and more important, organic turnover for the domestic market is growing fast, while the conventional business has become very competitive (see figure below). This is a clear indication that further growth of the organic segment is expected in the domestic market, as more and more consumers seek organic products in the market.

Related to organic exports, the business is rather difficult. Exports to the Netherlands and Romania in 2016 could not be sustained for not competing well with companies that source raw material directly from farmers and traders, processing them in their own infrastructure. Nevertheless, a strengthening of the export business is possible in any moment of time, as Firma DIAMANT LTD, LLC complies with the international quality standards ISO 9001 and ISO 22000 and is able to offer a big organic assortment of almost 50 different products.

Occurring value addition activities

The company’s purchases organic raw materials at prices that are 15–100% higher than conventional produce. Still, higher consumer prices for organic products in the domestic market enables the company to generate a margin which can be further invested for the promotion of the organic product range. Awareness creation activities involve active participation in forums and exhibitions, but also advertising activities to promote the organic product range through different type of media (i.e. bill boards, flyers, radio) and within supermarkets.

Promotion of organic products in a local fair in Poltava.

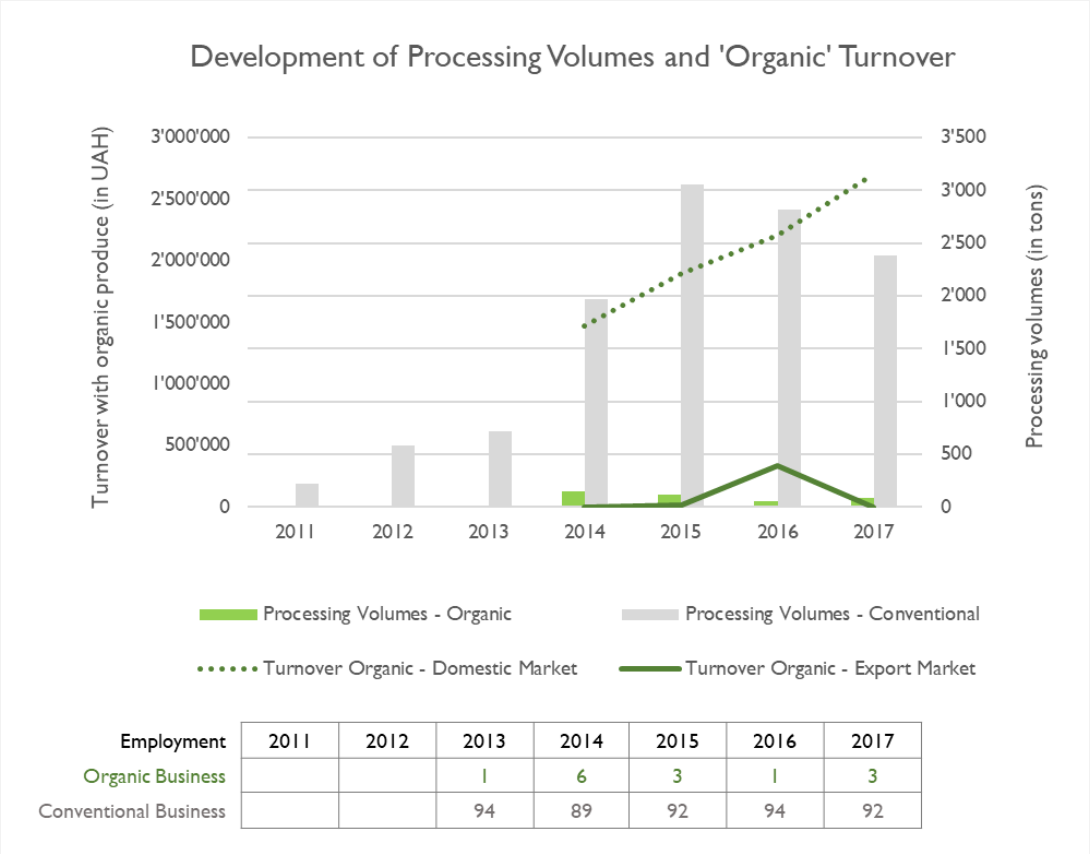
Packaging for the organic products is very similar to one used for conventional products, using mainly paper and cardboard packaging.

One of the company's organic products in the domestic market.

Magnitude and changes on employment

The introduction of an organic line has not led to meaningful job creation effects within the enterprise. Adding a differentiated product line in this business logic does not create additional jobs, or only very few, as indicated in the figure below, even more so as organic products occupy about 5% of the total company turnover. Much more interesting are the employment effects at the level of organic farms, benefitting from having a company like Firma DIAMANT LTD, LLC purchasing locally organic raw materials.

Most important at the company level are rather the two full-fledged positions that were explicitly created to run the organic business, so to have the needed capacities in place to run this business professionally and successfully. Also highly relevant were the capacity development activities the organic line brought along for all staff. The introduction of organic products implied that more attention was needed to ensure that all quality standards are met, as required by certification and the market. In this regard, the introduction of the organic product range brought along the establishment of the food safety and quality standards ISO 22000 and ISO 9001.



Employment	2011	2012	2013	2014	2015	2016	2017
Organic Business			1	6	3	1	3
Conventional Business			94	89	92	94	92

Source: Firma DIAMANT LTD, LLC

Box 5 Firm «Casper» Ltd

Company background and development pathway of the company

Firm «Casper» Ltd was founded in 1995 as a processing company specializing in the storage, cleaning and sorting of cereals and oil crops produced in Ukraine. Located near Odessa City, the company is organically certified since 2012 by Organic Standard according to the Standard Equivalent to the Council Regulation (EC) 834/2007 and the Commission Regulation (EC) 889/2008. Firm "Casper" presents its products at domestic and external market under the trade mark 'Organico'.

ORGANICO™
Premium quality organic food

The motivation to specialize the company on organic was linked to the vision of developing a full range of organic high quality and healthy oils for the Ukrainian market first, to then market these same products also abroad. Thus, «Casper» has become one of Ukraine's leading producers of quality organic sunflower oil, which is the main product of the company. Other products of the company relate to: extra-virgin and high-oleic sunflower oil, flax, rapeseed, camelina (false flax) and mustard oils. The oil cake obtained as a residue is sold as a feed component for organic animal husbandry.

Thanks to company's proximity to Ukraine's main seaport, Odessa, the company is interested to more strongly export its oils and cake to foreign markets. Especially the production of organic sunflower in Ukraine is growing very fast, thus making sure that enough raw material is available for exports. Oils can be offered either in bulk, in IBC containers, or in retail glass bottles. First export activities of the company date back to 2015, with Lithuania and France as first export markets. «Casper» offers flexible options for product packing, labelling, i.e. customers can decide if they want to sell under their own label. As a means to find new clients abroad, «Casper» expects to expand its export activities in the coming years, because organic sunflower production in Ukraine is rapidly growing. Thus, the company is searching for strategic business partnerships to enter different international markets. With this aim, «Casper» has been an exhibitor at Biofach since 2014.

Occurred value addition activities

The processing unit of «Casper» is ISO 22000 certified, equipped with the technology of cold pressing raw materials to produce high quality oils (i.e. maximum preservation of nutrients and vitamins). The production and packaging capacities fully meet organic standards and allows tracking of the entire production process: from production to packaging and logistics.

In the domestic market, «Casper» oils are mainly sold through quality retail chains, such as Auchan, Fozzy and Silpo, plus in organic shops and stores specialized on selling natural products. The company strives to further increase the awareness among the consumers through the constant participation in organic exhibitions and fairs. As the demand for organic products is growing within Ukraine, sales are expected to increase in the coming years. Yet, as the company also fully meets the requirements

«Casper» offers a wide range of organic oils using different Ukrainian crop raw materials.

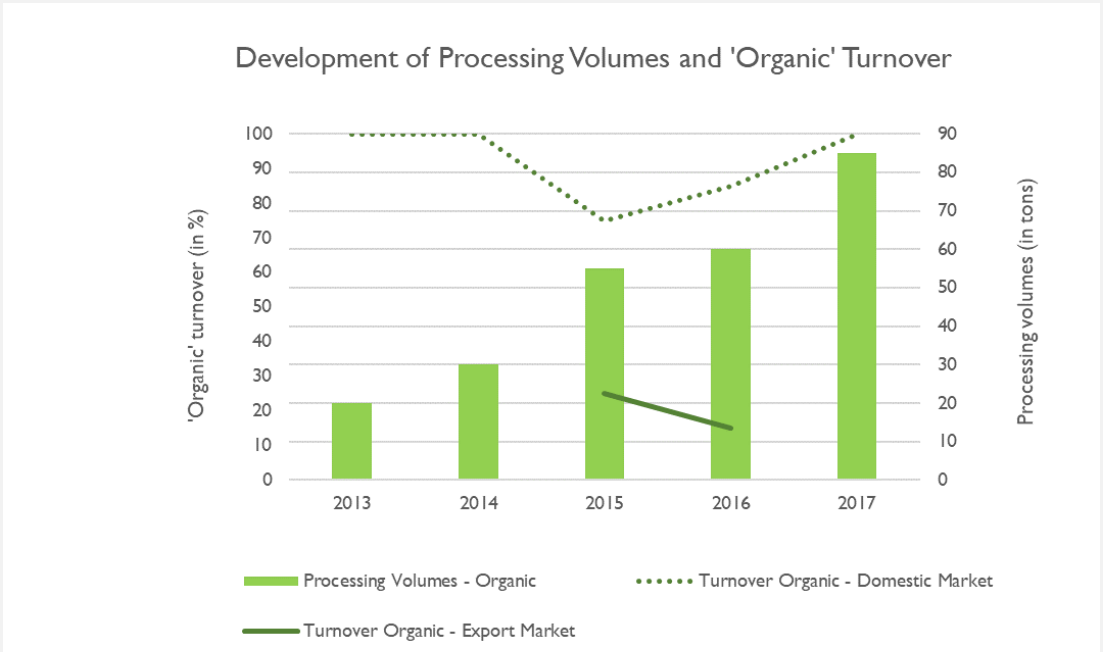
of international buyers, the company at the same time aims to increase the export volume to further increase company turnover and profit.

Despite the fact that the market for processed products is growing from year to year, it is still difficult to convince domestic supermarket chains that they should expand the product assortment with organic products. In other words, the supermarket staff in charge of product acquisition is still lacking sensitivity about the added value of organic oils for consumers. This hampers sales and further expansion of the company's production.

Magnitude and changes on employment

The factory is run by a professional team. In the area of marketing, two teams were formed as part of the company's sales department, one focusing on the domestic market and the other one on the export market.

As the company is not involved in agricultural production, but focusing only on processing, not many jobs have been created at the basis of the company. In recent years, new job positions were created mainly in the area of sales and marketing. This is partly due to the reason that the company has increased its efforts in actively disseminating information about the company and the benefits of its products. In 2017, 60% of employers were men and 40% were women.



Employment	2013	2014	2015	2016	2017
Processing - Men	8	8	7	8	8
Processing - Women	4	4	4	5	5
Trade & Administration - Men	3	4	4	6	8
Trade & Administration - Women	4	4	4	4	6

Source: Firm «Casper» Ltd

Box 6 Kyivskyi Agricultural Servicing Cooperative (ASC)

Company background and development pathway of the company

Kyivskyi Agricultural Servicing Cooperative (ASC) was established in November 2014 as the first cooperative in Ukraine that cultivates organic berries throughout the country convincing the farmers that organic berries – strawberries, raspberries, blackberries and red currants – can easily and successfully be grown in Ukraine. The cooperative was established on the basis of the enterprise «Small Fruit», founded in 2011 as an organic company in the Kyiv region. Aiming to develop the export business with the EU, the founders of "Small Fruit" understood that they would need much more batches of berries to successfully approach foreign buyers, than what could be obtained from one company. Thus, a cooperative was formed to unite farmers from different parts of Ukraine in producing organic berries for exports. ASC Kyivskyi strives to be a leader in producing and trading organic berries in Ukraine, with a cooperative structure that guarantees best quality of produced batches.

With Kyivskyi ASC, interested farmers to grow organic berries were able to receive tangible support to access organic seedlings, production knowhow, and market access. Especially the logistical support and prepayments for berries were crucial for farmers to join the cooperative, thus allowing it to grow fast in terms of number of farmers and hectares. By the end of 2017, 67 cooperative members were producing organic berries in 14 different regions, cultivating altogether more than 400 hectares of land. Initial domestic sales have become almost irrelevant as exports have grown drastically, with 130 tons of exported frozen berries in 2017. The relatively low production costs and good prices at the international market are a strong incentive for the cooperative to further expand its activities. This is why Kyivskyi ASC participated at Biofach in 2017 and 2018 as an exhibitor, to gain new clients and receive stable orders for bigger volumes. Overall, the direct contact with customers has been of great value for Kyivskyi ASC, to not only fetch better prices and depend less on intermediate traders but also to better respond to market needs and guide the support towards its members.

Occurred value addition activities

As Kyivskyi ASC targets the export market, all berries are processed to be exported in frozen form. For this reason, the cooperative uses refrigerated trucks which are able to keep temperature +3-5° when transporting berries from members' farms to the rented freezing infrastructure owned by one of the cooperative's members in Malyn town, Zhytomyr region. From there, the BQF processed berries are shipped frozen by trucks to different European countries including Germany, France, Denmark, Poland, Switzerland, Norway as well as the U.S. and Japan. Berries are mainly sold to traders and companies which then sell the berries under their own label, still as raw material for the food industry or as a final consumer product.

Value addition relates directly to three main interrelated issues: organic production, processing, and commercialization abroad. For organic raspberry seedling production, Kyivskyi ASC has facilitated the construction of greenhouses in 2017/2018, to meet the needs of the members of the cooperative. Organic production and certification help fetch higher product prices in the international market, being currently around 40% above conventional prices.

The processing of berries as such is relevant for value addition in regard that it ensures optimal conservation of the berries, enhances uses, and reduces food loss when trading (i.e. fresh berries are highly perishable). Indirectly, as most cooperative members produce also other organic crops, these crops generate additional value. Moreover, to enhance productivity, many farmers produce also own organic fertilizers, thus adding value to locally available resources.

ASC Kyivskyi provides different key services to its members, including transportation of berries.

Magnitude and changes on employment

Kyivskyi ASC managed to attract over 60 farm families which had not been involved in organic farming and berry production previously. As 90% of the members started growing organic berries on virgin lands, Kyivskyi ASC creates essentially new jobs where they did not exist at all. Cooperative members cultivate in average 5 hectares with berries, creating in each case job opportunities for about 30 seasonal workers and 3 permanent staff (head, accountant, security). As most seasonal workers are women, around 80%, especially important income for female labour is created; the same is true for processing. Also job opportunities for younger people are created, in berry production and the cooperative (administration, processing, logistics).

Employment	2012	2013	2014	2015	2016	2017
Agriculture - Men		1	2	5	10	200
Agriculture - Women		6	10	25	70	800
Processing - Men					3	7
Processing - Women					10	20
Other - Men	1	3	3	3	3	5
Other - Women					1	3

Source: ASC Kyivskyi

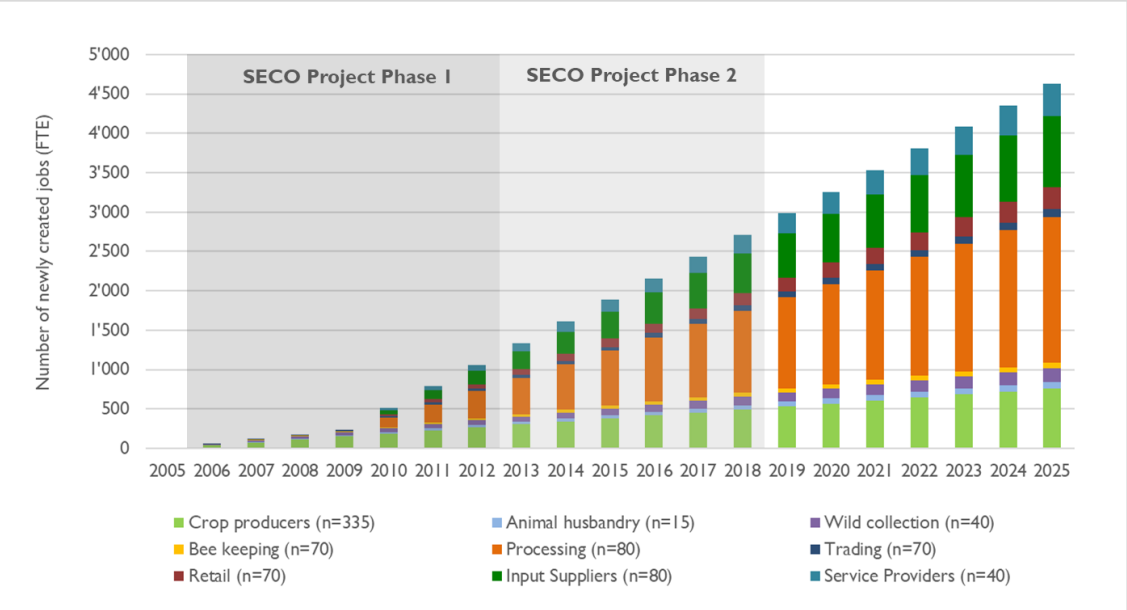
4. Conclusions relating to employment effects

4.1 Overall employment effects at the sector level

While the study's findings are helpful in providing insights into the employment effects of different crops and businesses within the Ukrainian organic sector, the data acquired lacks robustness to accurately quantify job creation effects. The answers received through the online survey and the calculated averages of new jobs created by operators in each category (see Figure 21) may reflect reasonable averages, but we have no means of verifying if those who responded to the survey are a representative sample, especially given the large variations between actors in each category, which involve both small businesses and big companies. Also, the job creation effects of start-up companies is much higher than for existing conventional agricultural businesses that converted to organic production (see Figure 23).

Nonetheless, when extrapolating under certain assumptions[27] the obtained data on 'new job creation' (see Figure 21), a job creation trend can be derived for the different categories to approximate total job creation effects (Figure 22).

Figure 22 Extrapolation of newly created full time equivalent (FTE) jobs



Source: Own extrapolation based on online survey data (Figure 21) and different assumptions mentioned in the footnote.

[27] Basis for calculation: (a) All seasonal labor relates to an average of 4 months employment (=1/3 FTE); (b) constant growth of number of operators is 14% (derived from Figure 2); (c) number of actors involved in 2017 is guessed by sector experts (see 'n=' in Figure 22); (d) employment growth rates are constant, starting for all production related categories in 2006 (see Figure 2) and for retail, processing, input supply, and service providers in 2009 (see Figure 4). Reference year for calculating is 2018.

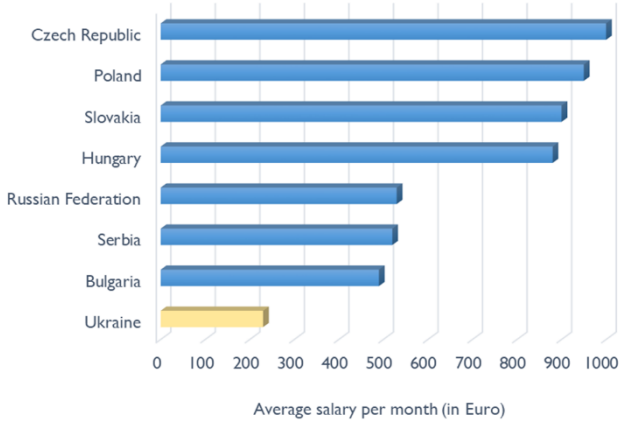
Overall, the yearly growth of new jobs created in the organic sector in the earlier years, from 2006 to 2010, seems reasonable with 60 FTE. The calculated yearly growth of yearly 275 FTE from 2010 onwards seems rather high, but can still be realistic given the fast growth of operators during these years and the stronger development of more labour intensive businesses, e.g. relating to berry production, processing, input supply.

While sector stakeholders argue that the SECO project has played an important role in the development of the organic sector in Ukraine, it is impossible to identify the extent to which employment growth has been triggered by project investments versus other factors, such as private investment.

4.2 Employment effects among different crops and business types

On the whole, the study findings clearly show large crop-specific differences in employment effects. In agricultural production, the sectors that generate the most new employment are berries (cultivated or collected from the wild), herbs and spices, and the other labour-intensive crops, such as nuts, fruits and vegetables. Enterprises in this last segment have yet to emerge on a commercial scale in Ukraine but may well do so in the near future as the sector continues to develop and attract investment in businesses involving both agricultural production and processing units, targeting both export and domestic markets. Given that Ukraine's labour costs are (still) relatively low compared to competing countries (see Picture 6), the production of these crops seem competitive, especially given the abundant natural resources available within the country (Amelin et al. 2017).

Ukraine's relatively low labour costs also favour labour-intensive organic processing ventures—in businesses where industrial processing is costly or not feasible. Interesting market opportunities exist for processing medicinal herbs and spices (see Figure 19), as well as walnuts, dried prunes, cherries, apples, juices and other preserved fruits (UNEP 2015).



Source: Amelin et al. 2017

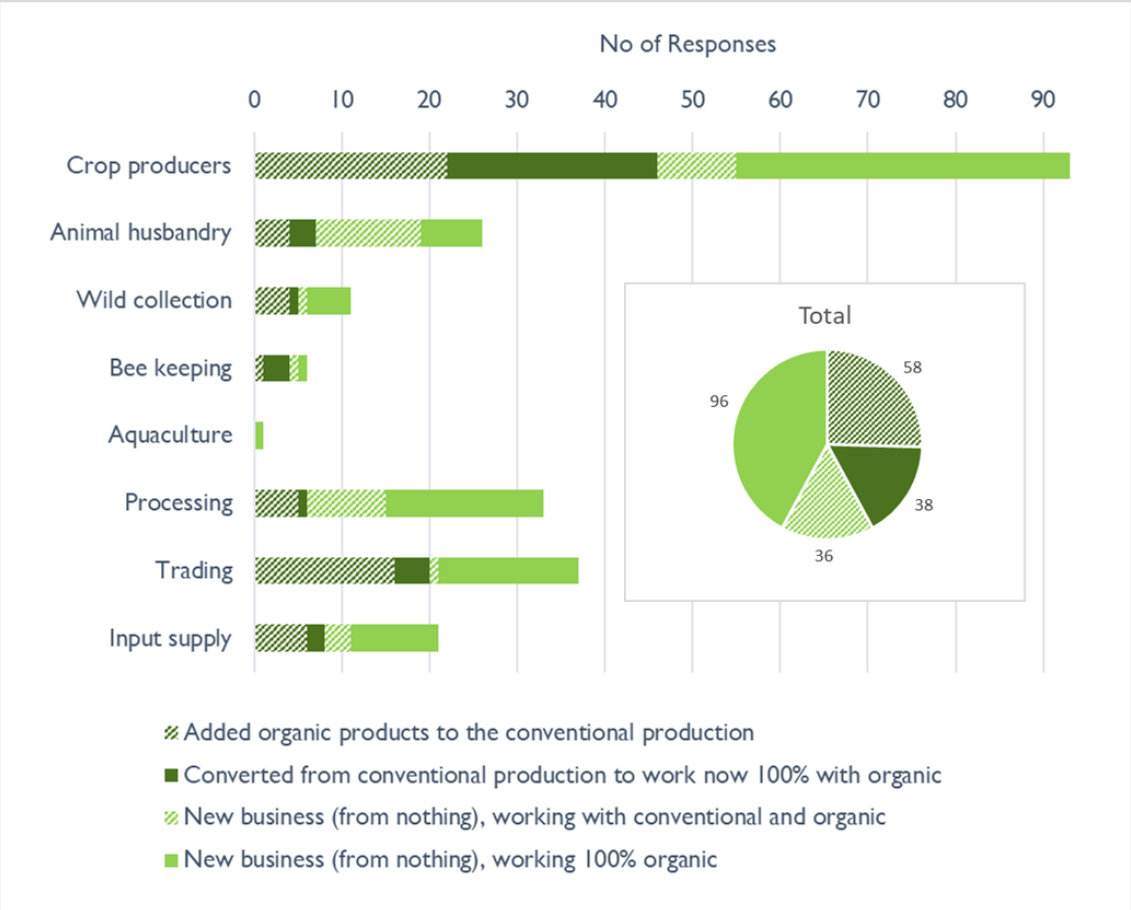
Picture 6 Salary level in Ukraine and competing countries

In regard to animal husbandry, dairy processing has shown to generate significant new jobs (see Figure 20), but the same is true for meat processing and any other labour-intensive manufacturing schemes to add consumer value through processing.

Where industrial processing is involved, direct labour effects are less pronounced. Yet, these business ventures may indirectly generate employment—especially when the product portfolio of final consumer products is increased, requiring more labour for product handling and marketing.

In conclusion, a programme or project that aims to enhance job creation through organic sector development should closely examine each business on a case-by-case basis. By doing so, it will not only be important to anticipate employment effects in quantitative terms (i.e. number of jobs created) but also in qualitative terms (i.e. jobs for whom, where, and involving what skills). Crucial will be to differentiate between conventional businesses that are converting to organic and the establishment of entirely new organic businesses (see Figure 23). The latter create completely new jobs, while conversion to organic might involve few or no direct employment changes. For instance, in the case of Kyivskyi ASC (see Box 6), where mainly fallow land was used to start organic berry production, more than 1,000 new jobs and income opportunities have been generated. Moreover, the number of these jobs are likely to further increase as the number of interested buyers continues to grow, proving an incentive to further expand production.

Figure 23 Development pathways of organic businesses



Source: Online survey data.

Certain businesses tend to generate little direct employment at the primary production level, but may stimulate employment opportunities upstream the value chain. This is especially the case in animal husbandry, where at the barn level no employment effects can be expected when converting to organic—but interesting new employment is generated in the context of processing and marketing. The same may be true for different organic crops. In the case of arable crops, for instance, organic processing is increasing in sunflower, soy and other seed crops (i.e. processing of organic oil and press cake), tomatoes (i.e. production of organic tomato paste), and wheat (i.e. production of organic pasta). As the demand for organic convenience food is growing fast internationally, Ukrainian companies may soon get involved in organic processing of, for instance, beans and vegetables, and other type of fruits.

4.3 Potential labour substitution effects by improved digitalization

The advance of digitalization within agriculture raises the risk that labour will increasingly be substituted by machines. To what extent must be expected that progress in precision farming technology development will vary the anticipated employment effects in Ukraine's organic sector?

Given that precision farming technologies involve high investment costs, their introduction depends on three preconditions: (1) the existence of feasible technologies that can replace labour without hampering product quality, (2) the potential for significant savings against the costs of labour, and (3) the existence of sufficient scale to afford and justify these investment costs. In general, these preconditions don't apply to the most important organic commodities in Ukraine; anticipated effects from digitalization will vary from crop to crop, causing different employment implications for different commodities:

- **Arable crops** – The production of organically cultivated arable crops is very much dominated by companies with access to large tracts of land. As discussed earlier in this report, the shift from conventional to organic production implies major investment in machinery, especially for weed control, leading to a slight decline in labour use per ha. In some cases, the machinery and technology obtained involves already digitized applications (see Box 3). Yet, given the very low labour use in arable crop production, the use of such modern technologies is not likely to have significant negative effect. Rather, it might be argued that data obtained through such technologies will create new specialized labour opportunities related to data processing and use.
- **Dairy production** – There is no big difference between organic and conventional milk production in terms of the use of technology. In order to reduce average processing costs, companies try to work at a scale where they can capitalize on the expensive machinery they use for milking (i.e. milk robots) and milk processing. Yet, it is

unlikely to be economically feasible to use expensive machinery when producing specialty products at small volumes. In such cases, labour is unlikely to be replaced by improved digitalization. The opposite may be the case: as organic production goes hand in hand with product diversification in the higher price market segments increases, new employment opportunities may be created (see Figure 20).

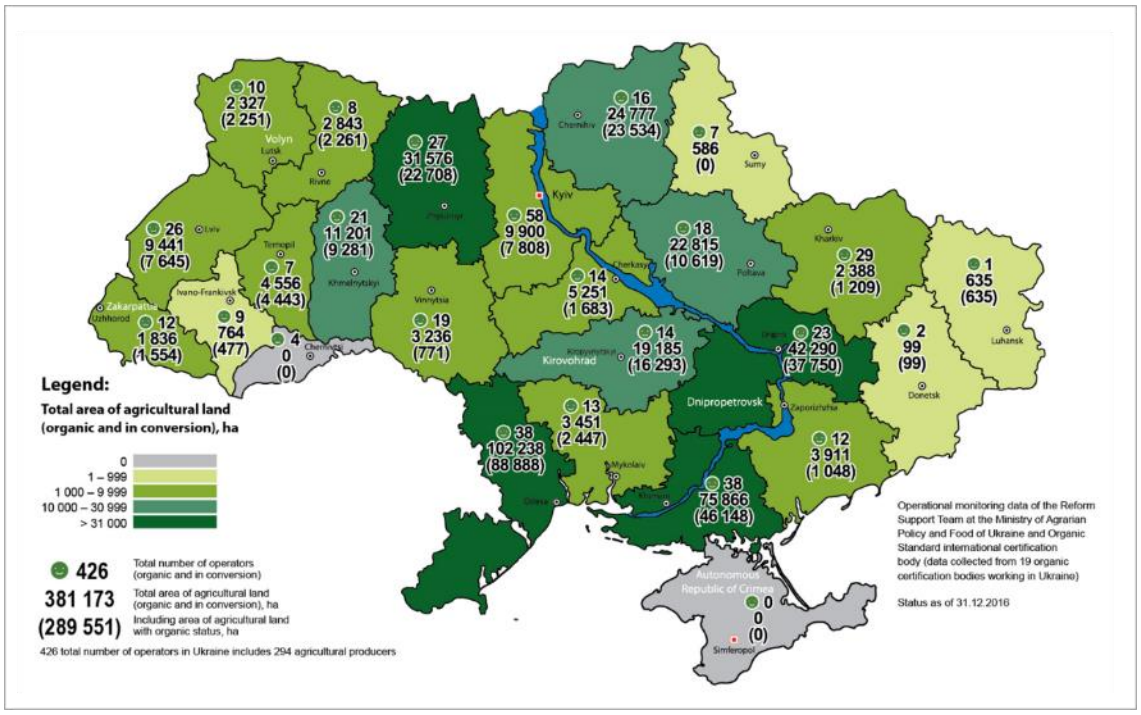
- **Wild collection** – Wild collection is probably the most secure job opportunity, which is unlikely to be replaced by machines. However, GPS-related imagery obtained from satellites or drone cameras could advance wild collection activities, and help to improve decision-making concerning the location and timing of wild collection activities. As this is likely to increase harvesting volumes and product quality, the effects on employment are likely to be positive and increased profits may lead to the expansions of this business, creating additional employment in other areas.
- **Berry production** – Berry cultivation involves a high amount of labour. Yet, the opportunities to apply precision farming technology to raspberry and strawberry production, the most important berries currently produced organically in Ukraine, seem limited. Precision technology may have a role to play in processing, but is unlikely to exert any labour substitution effects in production. Overall, Ukraine's berry sector is likely to benefit from the country having lower labour costs than competing berry producing countries (see Picture 6).
- **Vegetable production** – As vegetable production is relatively resource intensive in terms of inputs and labor, the precision farming technologies currently under development might be most promising for these type of crops. New technologies that are able to detect diseases and nutrient deficiencies and optimize mechanical weed control and harvesting may reduce the costs of organic (and conventional) vegetable production. This is particularly of interest for industrial-scale production, which work at a scale that justify such investments. Given that Ukraine does not yet have significant organic vegetable production, either for export or for the domestic market, precision farming could be seen as a real opportunity—to become an important supply country for organic vegetable produce for the industry. Such production would result in significant new labour opportunities in production and further along the value chain – especially in processing.

All in all, it must be expected that Ukraine will rather benefit from advances in the development and application of new precision farming technologies. The favorable soil conditions, large farm structures, and investors' proclivity to invest into profitable agricultural businesses will make companies look into this opportunity, especially for growing organic vegetables. Overall, it is likely that these new business ventures will generate additional employment, which will further increase the number of organic jobs anticipated in Figure 22.

4.4 Regional differences in employment effects

It is also important to look at the geographic and demographic distribution of employment creation. The survey findings provided hardly any evidence on where new jobs were created, or for whom. From a development perspective, it is important to know where jobs are created (i.e. in rural or urban contexts, in economically poorer or richer regions), and the extent to which young people benefit from new job opportunities. Also, the level of skills involved is key to ensuring attractive employment opportunities and to further strengthening the competitiveness of organic businesses, especially in rural areas.

Figure 24 Geographic distribution of organic operators in Ukraine, end 2016



Source: Elaborated by FiBL based on information gathered by MoAF.

Currently, the map of operators being active in Ukraine (see Figure 24) gives only an indication about the geographical distribution of operators; and provides no clues as to whether new jobs were created in rural or urban areas within these regions, and for whom. This once again underlines why future interventions targeting more explicitly employment outcomes would need to rely on an approach that differentiates employment creation effects.

The study shows that given the lack of alternative employers in rural areas, the employment effects of big organic farms are of great local relevance. Their role as competitive employers, with a high degree of innovation, is meaningful for people living in these areas, especially young people. Thanks to the newly created and attractive jobs, especially in processing and marketing, they can find meaningful employment in their

region with good career opportunities. Very good examples that showcase the relevance of such farms are Agroecology (see Box 2) and Galeks-Agro (see Figure 20), both of which have created dozens of new jobs in processing, retail, and management and administration. The case of Granit-Agro is interesting as it is likely to expand its organic activities by engaging in value addition activities in the coming years (see Box 3). These big companies also sponsor many local activities and institutions, and thus contribute to the cultural and economic development of rural areas.

Certain SMEs tend to generate a similar impact. The case of Kyivskyi (see Box 6) is extraordinary in having created highly meaningful new employment opportunities in different rural areas thanks to its success in processing and marketing organic berries for export. The same is true for Rivneholod (see Figure 18), which has created job opportunities and income for hundreds of families relating to wild collection in the surroundings of Rivne. Also Phytosvit (see Figure 19) is another good example of an SME that has created locally relevant jobs.

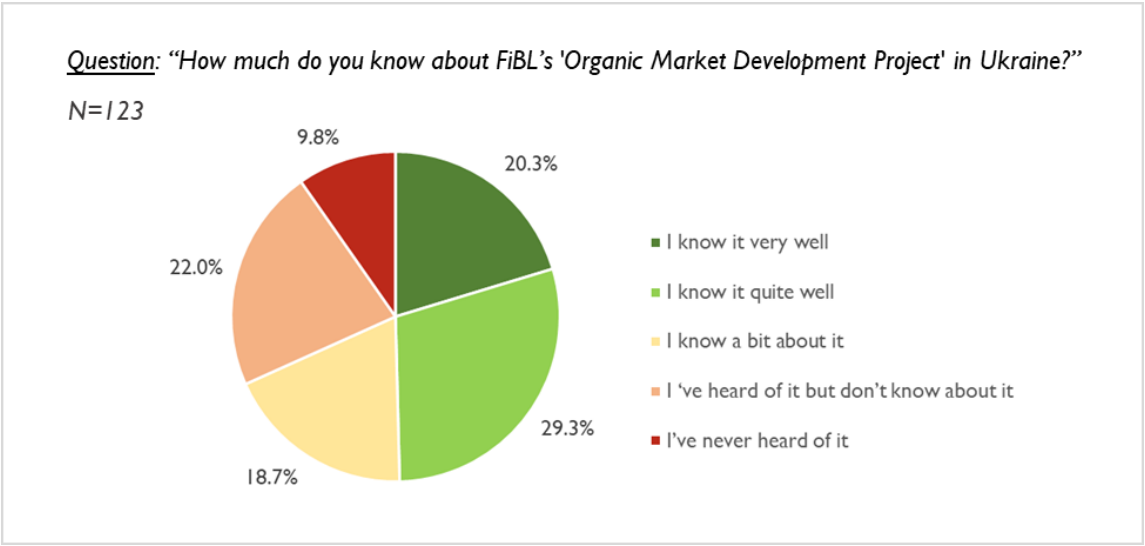
A common feature of these SMEs is that they focus on specialty crops and being able to export meaningful quantities of good quality produce to collaborating clients. SMEs that are unable to offer sufficient quantity, or don't meet international quality standards, have very limited (positive) influence on their surroundings (by creating jobs and income), regardless of the commodity they produce. For instance, two SMEs that were contacted to be documented as case studies for this study declined to participate, admitting that they are struggling to keep up production and trading volumes, and are facing quality constraints which cannot be easily overcome, particularly due to their limited financial resources.

4.5 Project contribution and attribution towards job creation

The question of the extent to which the Organic Market Development Project has contributed to the creation of jobs in the organic sector is difficult to answer. The fact is that such effects are of an indirect nature: jobs are created by sector stakeholders themselves, who hire people based on their needs and prospects. This study shows that there is no doubt that SECO's support has been key for the development of Ukraine's organic sector. What remains unclear is how the project's activities triggered these positive employment effects and how much other factors contributed (see Figure 22).

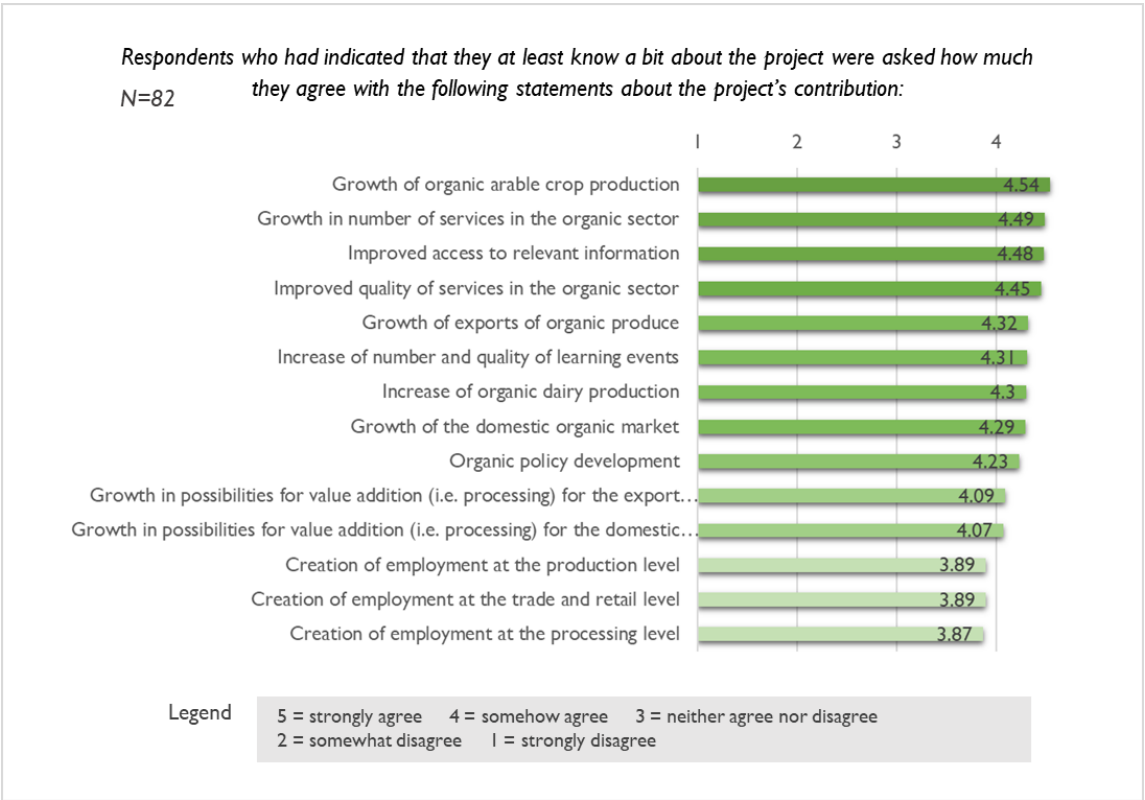
The online survey did reveal interesting information from sector stakeholders about how well known the project is (see Figure 25), and how those who know the project assess its contribution (see Figure 26). 90% of all respondents (N=123) know about the project: around 50% know the project either 'very well' or 'quite well', 20% state that 'they know a bit about the project' another 20% had heard about it. The 70% that at least 'know a bit about the project' were asked to share how they see the project's contribution to the development of Ukraine's organic sector (see Figure 26).

Figure 25 Sector stakeholders' awareness about the project



Source: Online survey data.

Figure 26 Sector stakeholders' assessment of the contribution of the Organic Market Development Project to the development of the organic sector in Ukraine



Source: Online survey data.

Overall, stakeholders believe the project played a very meaningful role in all the areas mentioned in the survey[28] (see Figure 26). The highest scores relate to the project's contribution in helping to expand organic arable crop production, including exports, improving access to relevant information and learning opportunities, and fostering the availability and quality of services relevant to the sector. The project's influence on the development of organic dairy production, domestic market and policy development was also highly rated. Its contribution to expanding business opportunities for value addition and employment generation was also positively evaluated, though slightly less so.

The fact that around 30% of the respondents have 'only heard about the project but I don't know it' may be interpreted in different ways. One might argue that the project has not reached all sector stakeholders with its activities, or did not communicate well enough its activities. Yet, a more reasonable interpretation is that these stakeholders most likely were not directly in contact with the project, but indirectly, through service providers or other stakeholders who were linked to the project. One clear example of this is Organic Standard, which was established and built up through Phase 1 of the project and is now the most important certification body in Ukraine, with around 40 full time employees and 9 part-time staff (in May 2018).[29] Other important service providers have also benefited from the project's support and continue to play a key role in fostering the market and sector development (e.g. QueS, Green Dossier, Organic Ukraine, Organic School, Organic Business, Institute of Organic Production). In any case, the survey reveals that the project has made a meaningful contribution in fostering the development and quality of services within the sector (see Figure 26).

The extent to which these services have contributed to improved skills and qualifications among sector stakeholders was not covered by the survey—although it must be assumed that these different services have most likely had a positive impact. Assessments of project-supported training initiatives revealed that capacity-building activities were highly appreciated. The project's 'facilitation approach'—i.e. aiming to empower local stakeholders through creating learning and networking opportunities and partnering up with other projects and donors—is being perceived most valuable for sustainably developing the sector. This interpretation would be very much in line with the project evaluators' opinion that "probably the biggest contribution of the project has been the creation of social capital within the sector" (Guenther et al. 2015).

[28] Yet, since not many respondents may be aware of the sector's development during the first project phase (2005-2010), it must be assumed that many answers relate mainly to the second phase (2012-2018).

[29] Since 2014, Organic Standard also received meaningful support through the SECO funded Consolidation of the Local Organic Certification Bodies project (ConsCert).

5. Final Reflection and Recommendations

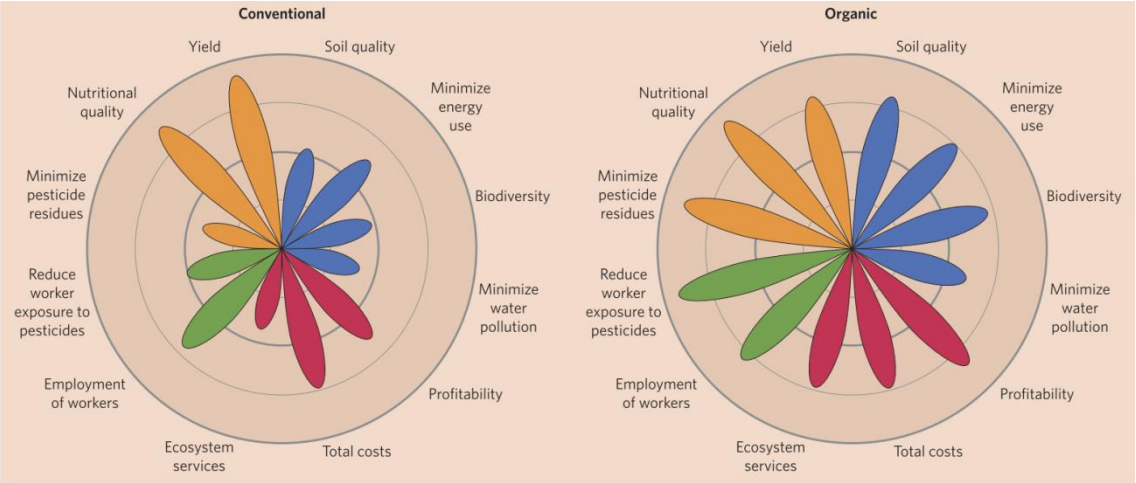
5.1 Relevance of organic agriculture for sustainable economic growth

The findings and conclusions of this study fully endorse SECO's policy paper on 'Trade with Organic Produce' (SECO 2010). The SECO supported interventions in Ukraine clearly show that 'organic' is, indeed, a 'viable instrument for stimulating sustainable economic development across emerging and least developed economies'. There is evidence that all five benefits of organic agriculture mentioned in this document occurred in the Ukrainian context:

1. Improved competitiveness and access to (international) markets;
2. Improved productivity and profitability of farming;
3. Protection of natural resources, biodiversity and eco-systems services;
4. Improved quality of soils and thereby a long-term high productivity;
5. Improved health or reduced health risks for farmers and consumers.

Interestingly, the potential of organic agriculture to positively contribute to employment is not mentioned in that list. Employment effects are rather considered as a 'by-product' of increased sector competitiveness—yet, without a clear association towards employment generation. This is consistent with meta-analysis research data, which also reveals that the biggest advantages of organic farming relate to environmental benefits rather than employment generation (see Figure 27).

Figure 27 Comparison of organic and conventional farming in the four major areas of sustainability[30]



Source: Reganold & Wachter, 2016.

[30] The lengths of the 12 'petals' qualitatively indicate the level of performance of specific sustainability metrics relative to the four circles, representing 25, 50, 75 and 100%.

Publications explicitly reflecting on the relationship between organic farming and employment (see Table 7) confirm that organic farming generally involves more labour, but also make it clear that employment effects are very context-specific as they vary greatly according to the type of crops and business models involved (including processing and marketing activities). Studies focusing on industrialized countries also reveal that increased labour demand in organic farming is rather a challenge than an opportunity, for implying higher production costs. Thus, if market access is given and relevant capacities are in place, organic farming turns into an opportunity for lower income countries, facing lower labour costs (Jouzi et al. 2017). In this regard, SECO's approach to support organic market development in low-income countries is highly pertinent.

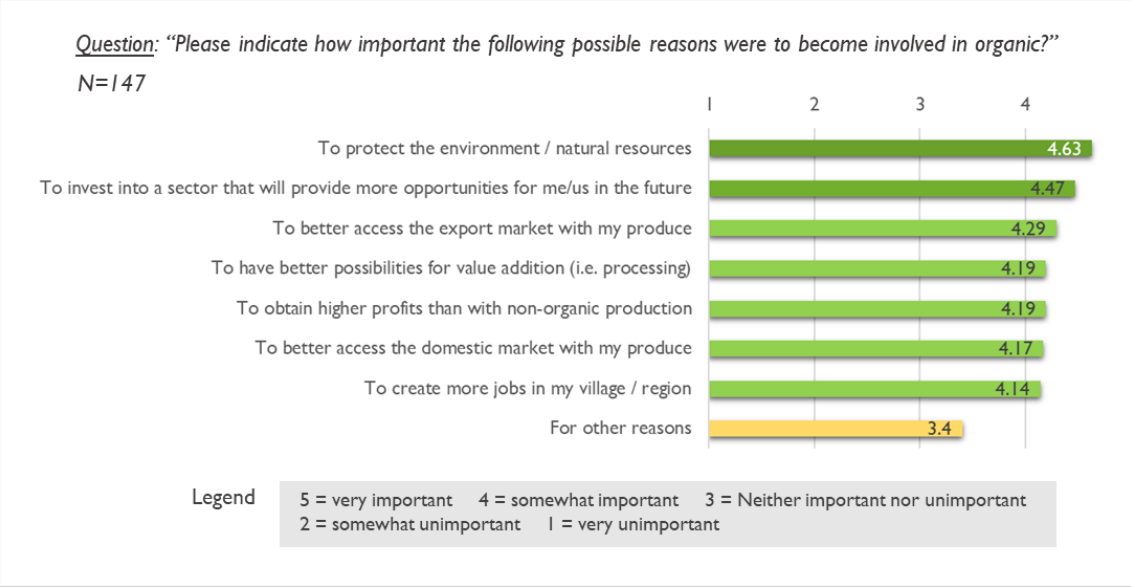
Table 7 Employment effects documented in different published studies

Publication	Context	Key Findings
Reganold & Wachter 2016	Industrialized Countries	‣ Organic farming systems produce lower yields compared with conventional agriculture. However, they are more profitable and environmentally friendly, involve slightly more workers, and deliver equally or more nutritious foods that contain less (or no) pesticide residues, compared with conventional farming. ‣ Initial evidence indicates that organic agricultural systems deliver greater ecosystem services and social benefits.
Bruce et al. 2017	U.S. (Ohio)	‣ Farmers engaged in small-scale alternative food production invest significantly more time in maintaining the health of their soils by practicing crop rotation, growing a greater diversity of crops and building organic matter with cover crops and compost. ‣ As this work is often unpaid, the added labour requirements pose an obstacle to the financial viability and social sustainability of alternative production methods.
Finley et al. 2018	U.S. (California & Washington)	‣ Organic farms employed 2-12% more workers per ha. ‣ A greater proportion (13–43% more) of hired labour on organic farms worked 150 days or more, suggesting higher labour requirements—and potentially more secure employment—on organic farms.
Lobley et al. 2009	United Kingdom	‣ Organic farms employ more people, yet this depends on the type of enterprise and marketing activities involved. ‣ It is important to specify and distinguish the economic benefits of different business cases (e.g. companies producing for the local market or export market).
Aceleanu 2016	Romania	‣ Promoting organic agriculture can improve human, environmental and economic health in the context of sustainable development.
Jouzi et al. 2017	Developing Countries	‣ The advantages of organic farming relate to environmental protection and a higher resilience to environmental change, increasing farmers' incomes and reducing the cost of external inputs, enhancing social capacity, increasing employment opportunities and enhancing food security, primarily by increasing the food purchasing power of locals. ‣ The main challenges of this food production system include lower yields in comparison to conventional systems, difficulties with soil nutrient management, certification and market barriers, and the educational and research needs of smallholders.

Source: Different publications (see reference list)

Survey responses confirm the relevance of organic farming in promoting sustainable economic growth (see Figure 28). Sector stakeholders strongly argue that the organic sector provides economic opportunities that help develop and sustain new promising business ventures—having the clear advantage of also protecting the environment and natural resources. For many actors, the latter is a key driver to engage in organic activities (see Figure 28), while positive employment effects should be seen as a positive side effect of converting to organic.

Figure 28 Reasons why stakeholders shifted towards organic



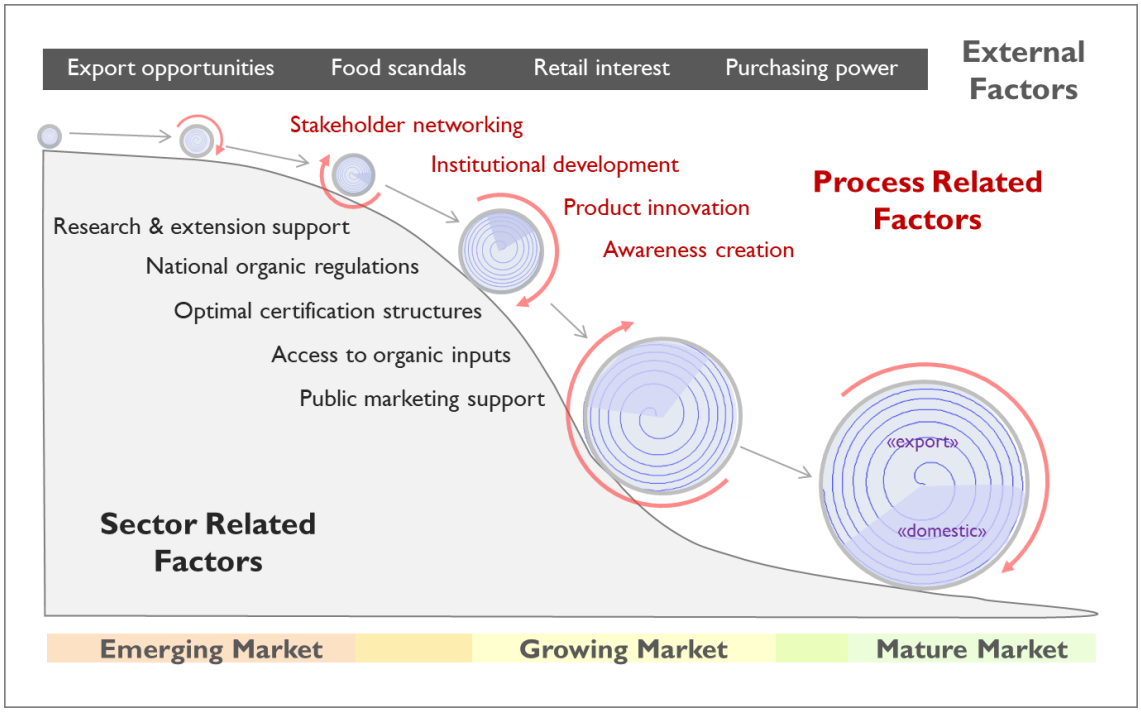
Source: Online survey data.

5.2 Prioritizing employment enhancing business opportunities as part of a sector approach to further promote sector growth and competitiveness

This study shows that the employment effects induced in the organic sector are highly meaningful from an economic and development point of view. Nevertheless, the two prioritized sectors in the SECO project, arable crops and dairy, are not among those creating best employment outcomes when farms convert to organic. The prioritization of these two sectors has undoubtedly contributed to the successful development of Ukraine's organic sector, which benefited equally from other project interventions focusing on service providers and the business environment (see Box 1)—yet employment effects might have been bigger when focusing on other commodities.

In order to further capitalize on the social capital already developed within the organic sector, we recommend to build on a similar intervention approach but with a more explicit emphasis on creating 'employment leverage' with support measures geared to the current development stage of Ukraine's organic sector (see Figure 29).

Figure 29 FiBL's organic sector development model



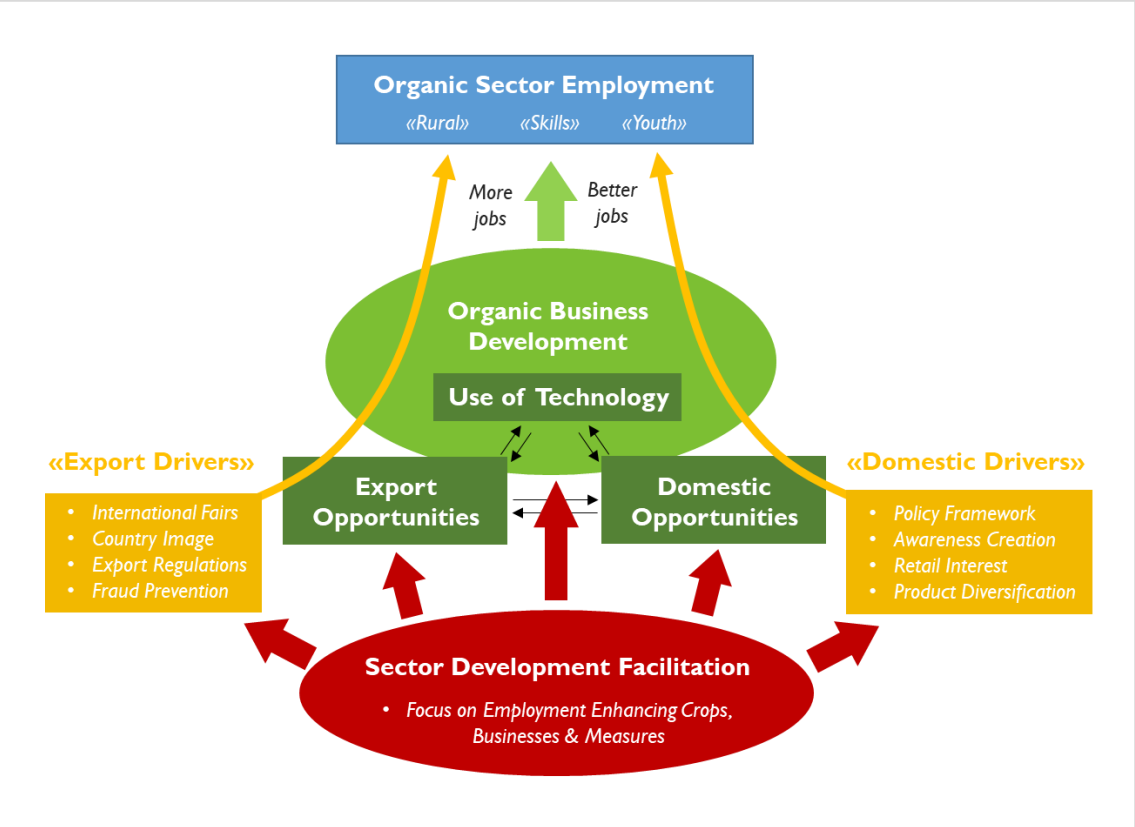
Source: FiBL

Authors consider that the organic sector in Ukraine is in a development stage where export opportunities and domestic market development opportunities can further be exploited. In this regard, they argue that a similar sector development approach would be most promising in a new project phase to build on the obtained achievements and further consolidate the social capital developed up to now (see Guenther et al. 2015)—yet using it more explicitly to target employment effects (see Figure 30). Besides further providing essential support to advance the framework conditions in the sector, SECO's contributions would need to focus on sectors that promise best possible employment outcomes especially for rural areas and younger people:

- **Direct employment effects** should be pursued by supporting competitive business ventures related to commodities that are labour demanding, including: the cultivation and wild collection of berries, medicinal herbs and spices, the processing of added value products (e.g. dairy, fruits, vegetables), beekeeping and aquaculture etc. (see UNEP 2015).
- **Indirect employment effects** should be pursued by leveraging factors that drive the development of the export and domestic market. In regard to exports, interventions should aim to improve and safeguard the 'organic image' of Ukraine, by supporting international fairs, helping to improve export regulations, and preventing fraud. For the domestic market, these interventions should aim to help get the national organic regulation in place and support effective awareness creation activities about organic

products to stimulate both demand and supply. Thereby, it will be key to differentiate key messages to optimally reach and impact varying target groups: consumers, retailers, media, (new) producers, and policy makers.

Figure 30 Generic interventional model to prioritize employment generation in a future organic sector development project



Source: Own elaboration.

The focus group discussions (see Annex 6) confirmed the importance of such a sectoral development approach and highlighted that further awareness creation investments are essential for stimulating further sector growth, both in exports and developing the domestic market (see Table 8).

In regard to exports, the Focus Group argued that 'public marketing support' would be key to further improve the image of Ukraine as a competitive and reliable producer of organic products—and increasingly of processed products. In terms of the domestic market, the most critical issue relates to setting the national organic legislation in place in order to create a solid base for domestic market development, in view of awareness creation (including protect the term 'organic' and promote the use of the organic logo), encouraging also retailers to engage more promoting organic products and sales.

Table 8 **Assessment of factors driving the development of Ukraine's organic sector and priorities for future project support**

Rated Aspects*	Assessment of current Situation (2018)	Importance for employment & income	Priority for future project support
Public marketing support	3.5	8.5	**9.5**
National organic regulation	4.5	8.5	**9.3**
Awareness creation	2.8	8.8	**9.2**
Retail interest	4.7	8.0	**8.5**
Institutional development	3.8	7.5	**8.2**
Stakeholder networking	5.7	7.2	**7.6**
Export opportunities	6.8	6.7	**7.5**
Domestic opportunities	4.5	7.5	**7.3**
Research & extension	3.0	6.2	**7.2**
Certification structures	7.2	6.7	**6.4**
Product innovations	3.2	4.3	**4.8**
Purchasing power	3.2	5.3	**4.4**

** Legend: 0 = 'very low', 3 = 'low', 5 = 'Nor low nor high', 7 = 'high', 10 = 'very high'*

Source: Responses from the survey's focus group (see Annex 6)

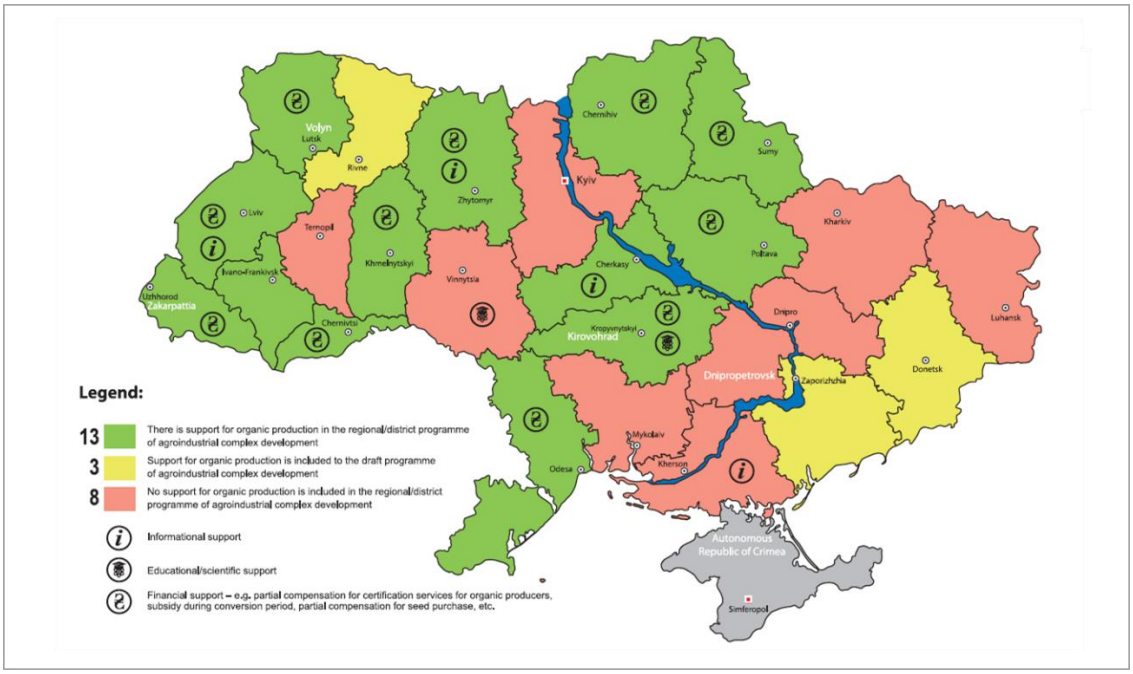
5.3 Cooperation with key stakeholders as a way of boosting employment effects

In order to leverage the impact of interventions and optimally engage with the factors driving sector development and employment (see Table 8), it will be important that a possible new SECO project would build on different strategic partnerships with the private and public sector:

- **The private sector** will be the main driver that will further increase the competitiveness of the Ukrainian organic sector and boost employment. Ideally, a future SECO project would partner with actors who are in a position to develop new or expand existing organic business opportunities while directly or indirectly creating new jobs. For the domestic market, most important will be retailers and manufacturing companies interested in, and committed to, using their own resources to expand the portfolio of Ukrainian organic produce. For the export market, bigger companies and innovative SMEs with the means to expand and upgrade their organic offer, especially through value addition activities, have the most strategic relevance. Continued support for service providers would add additional strength and value to these activities.
- **The public sector** will be key to continue shaping a business-enabling environment that encourages more monetary investments in developing new organic businesses. Priority should be given to help increase 'organic awareness'—among consumers, business actors, and policy makers—and to strengthen the legal framework and most

important public services to strengthen the development of the organic sector. While the national government will remain a crucial partner for advancing organic sector development at the national and international level, good collaboration with local policy makers will be of great relevance to create optimal development leverage at the level of oblasts. Here, the work of sensitizing local policy makers about the socio-economic importance of organic agriculture will be key. By 2017, 14 out of 24 oblasts had support measures in place to foster of organic agriculture (see Figure 31), which provide excellent entry points for collaboration to promote employment-enhancing organic business development in these regions.

Figure 31 Regional support for organic agriculture in Ukraine, by oblast (2018)



Source: Elaborated by FiBL based on operational monitoring data of MoAF collected from regional state administrations in December 2017.

5.4 Better monitoring of employment effects and skill development

For a future SECO project with a more explicit focus on employment creation, it will be essential to be in close contact with sector stakeholders to get a good understanding of how to better monitor employment effects. As argued earlier in this study, for organic operators, employment *per se* is not an objective but rather a necessity to develop productive operations (and often also an administrative burden!). By contrast, the project's interest will be to optimize employment outcomes—not only in terms of the number of jobs created and the level of income generation through employment, but also in terms of employment quality and value. From a development perspective, the creation of jobs for young people, especially in rural areas, and involving a competitive set of skills, is most important.

The explicit goal of project to optimize employment outcome implies that such a project will need to work very closely and strategically with sector stakeholders to adapt interventions to their context, in a way that they favour their business development. In view of that, project activities will need to add value from a stakeholder perspective, to serve as a door opener for obtaining access to companies' employment data—information that is commonly being perceive as confidential. Accordingly, if such support services are in place (e.g. services that enhance technical expertise, provide market intelligence, help develop marketing concepts and facilitate matchmaking), good partnership agreements or Memoranda of Understanding can be signed to ensure access to this information. This information is essential for good project monitoring and assessing project outputs and outcomes. Independent from this information, special thought will need to be given to how exactly employment effects will be measured and assessed (see Box 7).

Box 7 Recommendations for collecting and monitoring employment data

- To have a clear and consistent definition of a job, which is best expressed in full time equivalent (FTE) terms, where one job is one person working 240 working days a year. Part-time jobs are pro-rated accordingly.[31]
- To set in place partnership/collaboration agreements to ensure collection of at least yearly employee data from companies – both in terms of staff headcount, divided by full-time, part-time and seasonal employees, and total payroll. Ideally, jobs should also be reported by level of seniority (worker/supervisor/management).
- At the date of signing a partnership agreement with a company, a small baseline study should be done.
- To calculate not only production related employment but also upstream employment (relating to suppliers) and downstream employment (relating to processing, distribution and retail).
- To use a standardised survey instrument, e.g. the 'World Bank jobs in value chains' tool (see Farole 2016).
- To potentially commission an external impact assessment to estimate the Total Employment Effect, which also includes induced jobs.

Source: Ripley Matthew, International Labour Office.

[31] The headcount method (one person is one job, no matter how many hours worked in a year) tends to over-count seasonal labour, and leads to interventions in primary production being seen as more 'impactful' – even though these collection/cultivation/producer-level jobs may not be the most productive or value-added.

References

Aceleanu, M. I. 2016. Sustainability and competitiveness of Romanian farms through organic agriculture. *Sustainability 8(3): 245.*

Amelin A., Lavryk Y., Khomenko O. 2017. Forecast of Development of Ukrainian Economy in 2017. In: 2017 – Challenges and Opportunities. Kyiv, Ukraine.

Bernet T., Recknagel J., Asam L., Messmer M. (eds). 2016. Dossier 'Biosoja aus Europa – Empfehlungen für den Anbau und den Handel von biologischer Soja in Europa. FiBL & Donau Soja. Frick, Switzerland. (Available under www.fiblshop.ch)

BIOLan Ukraine Association. 2010. EcoFinLan Project: 8 Years of Experience. Vinnytsia, Ukraine.

Bruce, A. B. Castellano R. L. S. 2017. Labor and alternative food networks: challenges for farmers and consumers. *Renewable Agriculture and Food Systems 32(5): 403-416*

Eisenring T., Bernet T. 2013. Draft Concept for Ukraine Country Stand at BioFach 2014. Internal document, Frick, Switzerland.

Eisenring T., Bernet T., Lichtenhahn M., Schürmann St., Richter T. 2014. Promoting organic agriculture through model farms - Use of the Leader Approach in Ukraine Practitioners' Track, IFOAM Organic World Congress 2014 'Building Organic Bridges' (13-15 Oct.), Istanbul, Turkey.

Farole, T. 2016. Jobs in value chains : survey for jobs estimation in value chains. Washington, D.C. World Bank Group. (Available under http://documents.worldbank.org/curated/en/947061496743303573/Jobs-in-value-chains-survey-for-jobs-estimation-in-value-chains)

FiBL 2012. Organic Market Development in Ukraine, Phase II. Frick, Switzerland.

FiBL 2013. Final Project Document 'Organic Certification and Market Development in Ukraine 2005 – 2011'. Frick, Switzerland.

Finley L., Chappell J., Thiers P., Roy J. 2018. Does organic farming present greater opportunities for employment and community development than conventional farming? A survey-based investigation in California and Washington, *Agroecology and Sustainable Food Systems, 42:5, 552-572*.

Guenther D., Vasylenko A., Malkova K. 2015. Evaluation of the project „Organic Market Development Phase II" in Ukraine. Final Report.

Jouzi Z., Azadi H., Taheri F., Zarafshani K., Gebrehiwot K., Van Passel St., Lebailly P. 2017. Organic farming and small-scale farmers: Main opportunities and challenges. *Ecological economics 132: 144-154.*

Lobley M., Butler A., Reed M. 2009. The Contribution of Organic Farming to Rural Development: An Exploration of the Socio-Economic Linkages of Organic and Non-Organic Farms in England. *Land Use Policy 26(3): 723-735.*

Ministry of Agrarian Policy and Food of Ukraine. 2015. Single and Comprehensive Strategy for Agriculture and Rural Development in Ukraine for 2015-2020.

Natur Boutique. 2018. Natur Boutique company website: www.natur-boutique.ua.

Prokopchuk N., Eisenring T. 2011. Country Report – Ukraine. In: Willer, H. and Kilcher, L. (2011): The World of Organic Agriculture. Statistics and Emerging Trends 2011. IFOAM, Bonn & FiBL, Frick, Switzerland.

QueS, Organic Standard, Green Dossier. 2018. Ukraine Biofach 2018 brochure. Kyiv, Ukraine. (Available under www.biofach.com.ua/en)

Reganold J. P., Wachter J. M. 2016. Organic agriculture in the twenty-first century. *Nature plants 2(2): 15221.*

Serreau C. 2010. Solutions locales pour un désordre global. Video documentary including information about « PE Agroecology »: https://www.youtube.com/watch?v=3q_xzQ7pRi4

Schneider M., Richter T., Spahn Ch., Portmann K. 2005. Overview of international organic market development and potential export markets for organic products of Ukraine. FiBL, Frick, Switzerland.

SECO. 2005. Entscheidungsnotiz Organic Certification and Market Development in Ukraine Project 2006 – 2010. Berne, Switzerland.

SECO. 2010. Policy Paper -Trade with Organic Produce. (Revised version, Oct. 2010). Elaborated by Jäggin B., SECO, Berne, Switzerland.

Shor K., Guliyeva K., Galashevskyy S. 2018. Report - Ukrainian National Pavilion at BioFach 2018. Green Dossier, QueS and Organic Standard. Kyiv, Ukraine.

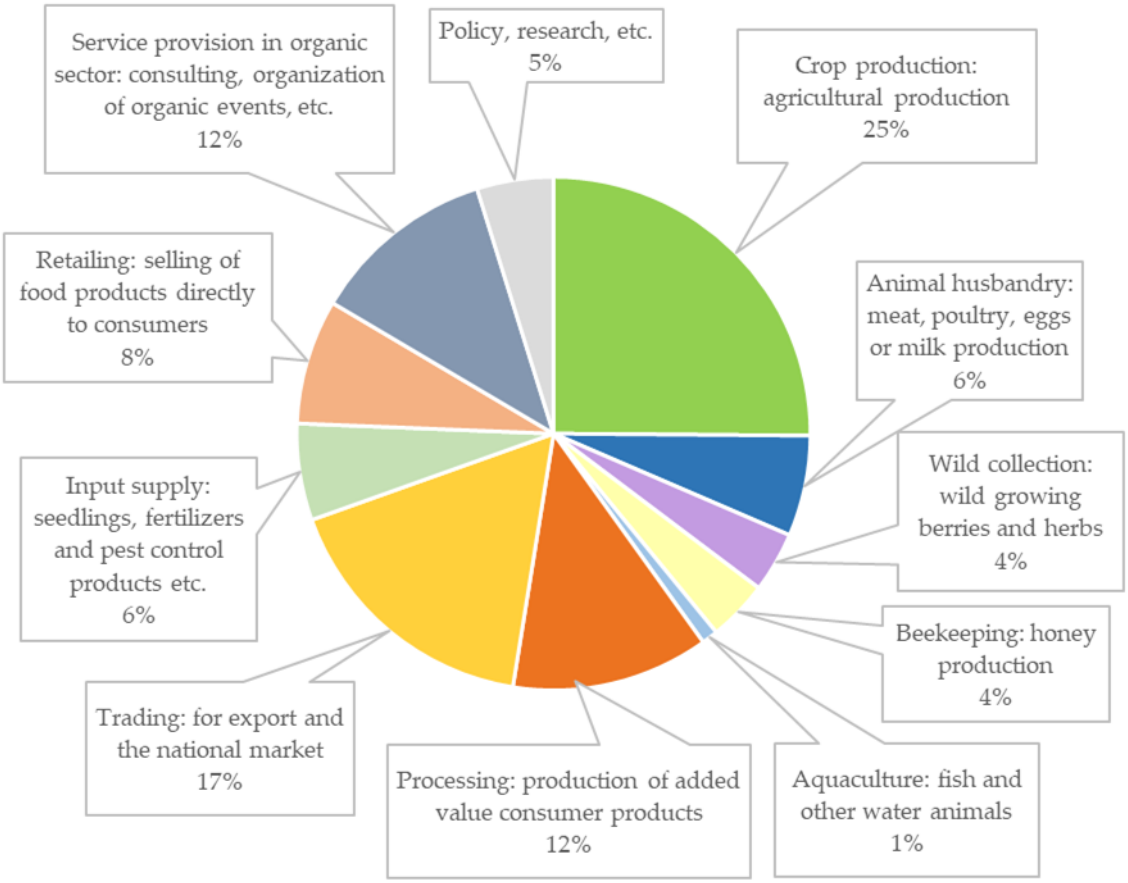
Trofimtseva O., Prokopchuk N. 2018. Organic in Ukraine. Factsheet as of 14.02.2018, MoAF and FiBL Kyiv, Ukraine.

UNEP. 2015. Market assessment of the European market for the main organic export products from Armenia, Moldova, Ukraine. Elaborated by Hermann G. and Berger J., Organic Services GmbH, München Germany.

Van Elzakker B., Bodnar F., Bayda I. 2009. Field Mission Ukraine Report. Annex 8 of SECO Organic Programme Evaluation. Agro Eco – Louis Bolk Institute, Wageningen International and Outdoor Organic, Driebergen, The Netherlands.

Annex 1 Online Survey – Proportion of Responses from Different Sectors

The online survey questionnaire was sent in February 2018 to 602 email addresses from a database elaborated by FiBL office staff in Kyiv. 323 people opened the survey; 123 opened the survey but did not answer any questions; 60 started the survey but did not answer all the questions; and 140 people completed the survey. This gives a Response Rate of 33.2% and a Completion Rate of 23.3%. This response rate is at the high end of typical responses to online surveying and suggests a relatively high degree of interest by those invited to participate.



Annex 2 Growth of the Ukrainian organic sector

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Certified organic land (in ha) [1]	164'449	239'542	240'000	241'980	242'034	249'872	269'984	270'193	270'226	270'320	272'850	393'400	400'764	410'550	381'173 [2]
No of certified producers (farms) [1]	31	69	70	72	80	92	118	121	142	155	164	175	182	210	294 [3]
Sales domestic market (in mio Euro) [4]	*No data*	*No data*	*No data*	0.2	0.4	0.5	0.6	1.2	2.4	5.1	7.9	12.2	14.5	17.5	21.2
Sales export market (in mio Euro) [5]	*No data*	*No data*	*No data*	*No data*	*No data*	*No data*	*No data*	*No data*	*No data*	*No data*	*No data*	*No data*	*No data*	*No data*	53

1 Sources: 2002-2015: Organic Federation of Ukraine; 2016: Reform Support Team at the Ministry of Agrarian Policy and Food of Ukraine (collected from certification bodies).
2 Total area of organic agricultural land (including in conversion), of which 289 551 ha is organically farmed land.
3 Total number of operators: 426, of which 294 are agricultural producers.
4 Source: Organic Federation of Ukraine.
5 Source: Organic Standard (estimated data from a survey conducted with all Ukrainian exporters).

Annex 3 Gross margin calculations for different crops

	Winter wheat Org.	Winter wheat Conv.	Soya Org.	Soya Conv.	Corn Org.	Corn Conv.	Sun-flower Org.	Sun-flower Conv.	Millet Org.	Millet Conv.	Rasp-berry Org.	Rasp-berry Conv.	Straw-berry Org.	Straw-berry Conv.	Garlic Org.	Garlic Conv.
Total costs (Euro)	**323**	**651**	**291**	**679**	**500**	**709**	**375**	**720**	**366**	**640**	**5370**	**5186**	**3766**	**4082**	**5775**	**6572**
Labour men (Euro)	36	70	36	60	38	63	36	69	37	70	1554	1554	1015	1057	477	608
Labour women (Euro)	0	0	0	0	0	0	0	0	0	0	2332	2330	1523	1586	715	912
Labour costs (Euro)	36	70	36	60	38	63	36	69	37	70	3886	3884	2538	2644	1191	1519
Tractor costs (Euro)	150	128	160	138	201	144	176	153	195	167	165	170	152	158	114	267
Input costs (Euro)	137	453	95	482	260	502	162	497	134	403	887	570	705	834	182	598
Yield (t/ha)	**4.5**	**8.0**	**2.0**	**3.5**	**6.0**	**7.5**	**2.5**	**4.0**	**2.5**	**2.5**	**8.0**	**12.0**	**12.0**	**18.0**	**6.0**	**10.0**
Yield, favorable (t/ha)	*6.0*	*8.0*	*3.5*	*4.5*	*8.0*	*11.0*	*4.0*	*5.0*	*4.0*	*5.0*						
Yield, unfavorable (t/ha)	*3.5*	*3.5*	*1.5*	*2.0*	*4.0*	*6.0*	*1.5*	*3.0*	*1.5*	*1.2*						
Price (Euro/t)	**260**	**180**	**620**	**415**	**200**	**173**	**500**	**380**	**310**	**280**	**1300**	**600**	**1500**	**800**	**1400**	**1100**
Price, favorable (Euro/t)	*290*	*200*	*680*	*480*	*240*	*215*	*570*	*435*	*900*	*330*						
Price, unfavorable (Euro/t)	*190*	*160*	*540*	*330*	*170*	*140*	*390*	*330*	*280*	*235*						
Revenue average (Euro/ha)	**1170**	**1440**	**1240**	**1453**	**1200**	**1298**	**1250**	**1520**	**775**	**700**	**10086**	**7565**	**17777**	**14184**	**8510**	**11032**
Revenue, favorable (Euro/ha)	*1433*	*1520*	*1765*	*1774*	*1520*	*1758*	*1713*	*1820*	*1745*	*1113*						
Revenue, unfavorable (Euro/ha)	*883*	*955*	*1005*	*993*	*910*	*1044*	*863*	*1230*	*583*	*462*						
Gross Margin (Euro/ha)	**847**	**789**	**949**	**773**	**700**	**588**	**875**	**800**	**409**	**60**	**4716**	**2379**	**14011**	**10102**	**2735**	**4460**
Gross Margin, favorable (Euro/ha)	*1110*	*869*	*1474*	*1094*	*1020*	*1048*	*1338*	*1100*	*1379*	*473*						
Gross Margin, unfavorable (Euro/ha)	*560*	*304*	*714*	*313*	*410*	*335*	*488*	*510*	*216*	*-178*						

Source: Based on data shared by Institute of Organic Agriculture (arable crops) & Organic Business (berries and garlic)

Annex 4 Detailed survey results[32]

Market development – Perceived changes in the organic sector over the past 10 years:

Please indicate whether you think the following aspects of the organic sector in Ukraine have increased or decreased in the past 10 years.

Categories	Whole sample	Producers	Traders	Processors	Retailers	Service Providers	Policiy Makers
No of responses per category	*N=161*	*N=99*	*N=59*	*N=48*	*N=30*	*N=45*	*N=18*
Organic arable crop production	1.63	1.66	1.6	1.58	1.54	1.41	1.5
Exports of organic produce	1.64	1.67	1.61	1.59	1.6	1.47	1.76
The number of services in the organic sector	1.81	1.87	1.9	1.89	2	1.63	1.61
Organic dairy production	1.95	2.11	1.96	1.88	1.89	1.85	1.8
Size of the domestic organic market	1.96	2.14	1.95	1.96	1.83	1.7	1.67
Access to relevant information	2.07	2.13	2.07	2.13	2.11	1.8	1.67
Quality of services in the organic sector	2.08	2.15	2.21	2.36	2.33	1.98	1.88
The number and quality of learning event	2.08	2.09	2	2.02	2.14	1.82	1.81
Possibilities for value addition (i.e. processing) for the export market	2.19	2.24	2.17	2.18	2.12	2	2.29
Number of jobs at the production level	2.25	2.27	2.31	2.29	2.35	1.97	2.07
Number of jobs at the trade and retail level	2.27	2.37	2.29	2.29	2.16	2.05	1.94
Possibilities for value addition (i.e. processing) for the domestic market	2.27	2.35	2.35	2.26	2.17	2.14	2.24
Number of jobs at the processing level	2.32	2.38	2.37	2.36	2.33	2.08	2.13
Job opportunities for women in management positions in the sector	2.33	2.24	2.33	2.41	2.33	2.16	2.31
Employment opportunities for woman other than management positions, as working staff	2.34	2.3	2.36	2.38	2.36	2.17	2.27
Legal regulation of the domestic organic sector	2.64	2.69	2.61	2.57	2.54	2.57	2.39

Legend: 1 = strongly increased 2 = somehow increased 3 = stayed the same 4 = somewhat decreased 5 = strongly decreased

[32] Note: The survey was implemented with a scoring where low numbers would relate to strong perceptions and convictions (see legends in each table mentioned here in the Annex). However, to graph the results (see Figures relating to the survey in this document), it was decided to revert this, such that rather longer bars would visualize strong and positive perceptions. Correspondingly, the legends ware changed, too.

Project perception

Respondents who had indicated that they know 'at least a bit' about the project were asked how much they agree with the following statements about the project:

Categories	Whole sample	Crop Producers	Animal Producers	Wild Collectors	Bee-keepers	Aqua-culture	Traders	Proces-sors	Input Suppliers	Retailers	Service Providers	Policiy Makers
Responses	*N=82*	*N=31*	*N=12*	*N=4*	*N=5*	*N=1*	*N=27*	*N=23*	*N=9*	*N=16*	*N=31*	*N=13*
Growth of organic arable crop production	1.46	1.39	1.5	1.5	1.8	1	1.63	1.65	1.67	1.31	1.29	1.23
Growth in number of services in the organic sector	1.51	1.39	1.33	1.5	1.6	1	1.56	1.61	2	1.41	1.35	1.23
Improved access to relevant information	1.52	1.52	1.33	1.8	1.6	1	1.59	1.58	2	1.33	1.41	1.38
Improved quality of services in the organic sector	1.55	1.42	1.33	1.5	1.6	1	1.67	1.57	1.89	1.47	1.42	1.38
Growth of exports of organic produce	1.68	1.68	1.58	2.2	1.6	1	1.7	1.67	1.8	1.59	1.61	1.67
Increase of number and quality of learning events	1.69	1.5	1.42	2	1.8	1	1.78	1.83	2.6	1.71	1.53	1.38
Increase of organic dairy production	1.7	1.63	1.67	1.67	1.5	1	1.75	1.57	2.22	1.47	1.5	1.67
Growth of the domestic organic market	1.71	1.61	1.58	2.2	1.75	1	1.88	1.78	2	1.47	1.59	1.62
Organic policy development	1.77	1.84	1.83	2.2	1.75	1	1.92	1.74	2.3	1.65	1.66	1.69
Growth in possibilities for value addition (i.e. processing) for the export market	1.91	1.68	1.92	2.4	2	1	2.07	2	2.3	1.88	1.77	1.83
Growth in possibilities for value addition (i.e. processing) for the domestic market	1.93	1.77	2.08	2.4	2	1	2.15	2	2.3	1.88	1.77	1.83
Creation of employment at the production level	2.11	1.94	2.17	2.8	2	1	2.41	2.13	2.3	2.18	2	1.83
Creation of employment at the trade and retail level	2.11	1.9	2	2.6	2	1	2.36	2.05	2.3	2.12	2.03	2.08
Creation of employment at the processing level	2.13	2	2.17	2.8	2	1	2.37	2.13	2.2	2.12	2.07	2

Legend 1 = strongly agree 2 = somehow agree 3 = neither agree nor disagree 4 = somewhat disagree 5 = strongly disagree

Annex 5 Online survey responses relating to employment, by sectors

Time period: Start 2008 – End 2018

Total (N=194)	Permanent Men	Permanent Women	Seasonal Men	Seasonal Women	Total
Employed at start	2061	1265	613	618	4557
Employed at finish	2275	1535	675	1109	5594
New jobs	214	270	62	491	1037
Percentage increase	10.38	21.34	10.11	79.45	22.76

Crop Production (n=56)	Permanent Men	Permanent Women	Seasonal Men	Seasonal Women	Total
Employed at start	727	401	362	429	1919
Employed at end	658	385	477	786	2306
New jobs	-69	-16	115	357	387
Percentage increase	-9.5	-4.0	31.8	83.2	20.2

Animal Husbandry (N=12)	Permanent Men	Permanent Women	Seasonal Men	Seasonal Women	Total
Employed at start	243	144	7	6	400
Employed at end	260	163	11	10	444
New jobs	17	19	4	4	44
Percentage increase	7.0	13.2	57.1	66.7	11

Wild Collection (n=7)	Permanent Men	Permanent Women	Seasonal Men	Seasonal Women	Total
Employed at start	15	4	67	31	117
Employed at end	25	14	25	64	128
New jobs	10	10	-42	33	11
Percentage increase	66.7	250.0	-62.7	106.5	9.4

Bee Production (n=8)	Permanent Men	Permanent Women	Seasonal Men	Seasonal Women	Total
Employed at start	8	4	6	2	20
Employed at end	11	5	6	4	26
New jobs	3	1	0	2	6
Percentage increase	37.5	25.0	0.0	100.0	30

Aquaculture Production (n=2)	Permanent Men	Permanent Women	Seasonal Men	Seasonal Women	Total
Employed at start	3	0	0	0	3
Employed at end	3	0	0	0	3
New jobs	0	0	0	0	0
Percentage increase	0	0	0	0	0

Processing (n=30)	Permanent Men	Permanent Women	Seasonal Men	Seasonal Women	Total
Employed at start	808	522	76	100	1506
Employed at end	960	689	91	157	1897
New jobs	152	167	15	57	391
Percentage increase	18.8	32.0	19.7	57.0	25.96

Trading (n=38)	Permanent Men	Permanent Women	Seasonal Men	Seasonal Women	Total
Employed at start	125	95	78	37	335
Employed at end	140	116	38	62	356
New jobs	15	21	-40	25	21
Percentage increase	12.0	22.1	-51.3	67.6	6.27

Retail (n=17)	Permanent Men	Permanent Women	Seasonal Men	Seasonal Women	Total
Employed at start	13	38	5	5	61
Employed at end	23	58	12	9	102
New jobs	10	20	7	4	41
Percentage increase	76.9	52.6	140.0	80.0	67.21

Input Suppliers (n=14)	Permanent Men	Permanent Women	Seasonal Men	Seasonal Women	Total
Employed at start	81	18	7	4	110
Employed at end	134	39	10	12	195
New jobs	53	21	3	8	85
Percentage increase	65.4	116.7	42.9	200.0	77.27

Service providers (n=10)	Permanent Men	Permanent Women	Seasonal Men	Seasonal Women	Total
Employed at start	38	39	5	4	86
Employed at finish	61	66	5	5	137
New jobs	23	27	0	2	52
Percentage increase	60.1	69	0	25	60.47

Annex 6 Stakeholders who provided information for the study

Actor Group	Name	Organization	E-mail	Website
Focus Group	Sergiy Galashevskyy	Organic Standard Ltd	galashevskyy.s@organicstandard.ua	www.organicstandard.com.ua
	Kateryna Shor	Information Center "Green Dossier"	kateryna.shor@gmail.com	www.dossier.org.ua
	Kseniia Gulieva	QueS Ltd	quesservice@gmail.com	www.ques.com.ua
	Olena Deineko	Organic Business	ceo@organicbusiness.com.ua	www.organicbusiness.com.ua
	Andriy Olefirenko	Organic Original Ltd	olefir@ecorod.ua	www.ecorod.ua
	Olena Rakova	Public Union "Organic Ukraine"	info@organicukraine.org.ua	www.organicukraine.org.ua
Case Studies	Viktor Kyz	Firma Diamant LTD, Ltd	export@diamantltd.com.ua	www.diamantltd.com.ua
	Glib Lukyanenko	Agroecology PE	lukyanenkogleb@gmail.com	www.agroecology.in.ua
	Oleg Trofanchuk	Firm "Casper", Ltd	olegt_kasper@ukr.net	www.organico.ua
	Anastasiia Maliyenko	Arnika Organic Ltd,Granit-Agro PE	a.maliienko@arnika.org.ua	www.arnikaorganic.com
	Oleg Shubrat	Kyivskyi ASC	asckyivskyi@ukr.net	www.small-fruit.com.ua
Dairy farms	Zina Kalmykova	Galeks-Agro PE	galex.agro@gmail.com	www.galeks-agro.com
	Andriy Nikolayuk	Ethnoproduct PrJSC	an@ethnoproduct.com	www.ethnoproduct.com
	Zina Kalmykova	Organic Milk Ltd	zinakalmykova89@ukr.net	www.organic-milk.com.ua
	Nataliya Tkach	Staryi Porytsk Ltd	porytsk@ukr.net	www.porytsk.com
Other key actors	Nataliya Turchyk	Rivneholod ALC	shender3005@mail.rv.ua	www.rivnefrost.com
	Viktoriia Hykava	Phytosvit Ltd	victory.phitosvit@gmail.com	www.phytosvit.com
	Oleksii Kachkovskyi	Institute of Organic Production Ltd	akachkovskiy@ukr.net	
	Andriy Vdovychenko	Institute of Organic Production Ltd	a.vdovychenko@gmail.com	

Annex 7 Online survey questionnaire

This online survey is part of a Socio-Economic Study conducted by the FiBL implemented Swiss-Ukrainian project 'Organic Market Development in Ukraine', funded by the Swiss Confederation through the State Secretariat for Economic Affairs (SECO). This specific study aims to assess the changes occurred in the organic sector in Ukraine in the last 10 years. We very much appreciate that you take your time to help us with this endeavor. We promise to handle the information you share with us completely confidentially, and find a way to thank all those that participate in this survey with a USB stick that features most important documents of our project!

Section A: Background Information

This section is about the activities that you are involved in.

A1. Please type in your email address.

It may be that we need to contact you again in the future for clarification. But mainly we need your email address so we know where to send a copy of the result.

A2. ***Which of these activities are you involved with as a company – not only activities with organic certification?***

- ☐ Crop production: agricultural production
- ☐ Animal husbandry: meat, poultry, eggs or milk production
- ☐ Wild collection: wild growing berries and herbs
- ☐ Beekeeping: honey production
- ☐ Aquaculture: fish and other water animals
- ☐ Processing: production of added value consumer products
- ☐ Trading: for export and the national market
- ☐ Input supply: seedlings, fertilizers and pest control products etc.
- ☐ Retailing: selling of food products directly to consumers
- ☐ Service provision in organic sector: consulting, organization of organic events, etc.
- ☐ Policy, research, etc.
- ☐ Other

Other

A3. Do any of your activities undergo organic inspection?

- ☐ Yes
- ☐ No

A4. Reasons for becoming involved organic in the organic sector.

Please indicate how important the following possible reasons were to become involved in organic?

	Very important reason	Somewhat important reason	Not important reason
To obtain higher profits than with non-organic production	☐	☐	☐
To protect the environment / natural resources	☐	☐	☐
To create more jobs in my village / region	☐	☐	☐
To better access the export market with my produce	☐	☐	☐
To better access the domestic market with my produce	☐	☐	☐
To have better possibilities for value addition (i.e. processing)	☐	☐	☐
To invest into a sector that will provide more opportunities for me/us in the future	☐	☐	☐
For other reasons	☐	☐	☐

A5. You indicated 'For other reasons' as either a very important or somewhat important reason to convert to organic. Please specify your reason.

Section B: Perceptions about the organic sector

These questions are about the organic market and sector development in Ukraine: Specifically how you think the following aspects of the organic market in Ukraine have changed.

B1. Please indicate whether you think the following aspects of the organic sector in Ukraine have increased or decreased in the past 10 years.

	strongly increased	somewhat increased	stayed the same	somewhat decreased	strongly decreased	I don't know/no answer
Organic arable crop production	☐	☐	☐	☐	☐	☐
Organic dairy production	☐	☐	☐	☐	☐	☐
The number of services in the organic sector	☐	☐	☐	☐	☐	☐
Quality of services in the organic sector	☐	☐	☐	☐	☐	☐
Exports of organic produce	☐	☐	☐	☐	☐	☐
Size of the domestic organic market	☐	☐	☐	☐	☐	☐
Legal regulation of the domestic organic sector	☐	☐	☐	☐	☐	☐
Access to relevant information	☐	☐	☐	☐	☐	☐
The number and quality of learning events	☐	☐	☐	☐	☐	☐
Possibilities for value addition (i.e. processing) for the export market	☐	☐	☐	☐	☐	☐
Possibilities for value addition (i.e. processing) for the domestic market	☐	☐	☐	☐	☐	☐
Number of jobs at the production level	☐	☐	☐	☐	☐	☐
Number of jobs at the processing level	☐	☐	☐	☐	☐	☐
Number of jobs at the trade and retail level	☐	☐	☐	☐	☐	☐
Job opportunities for women in management positions in the sector	☐	☐	☐	☐	☐	☐
Employment opportunities for woman other than management positions, as working staff	☐	☐	☐	☐	☐	☐

Section C: Performance of the organic sector

These questions are about the performance of the organic market and sector in Ukraine: Specifically how much you agree with the following statements of how the organic market is performing in Ukraine.

C1. Please indicate how much you agree with the following general statements

	strongly agree	somewhat agree	neither agree nor disagree	somewhat disagree	strongly disagree	I don't know/No answer
Organic arable crop production is more profitable than non-organic arable crop production (per ha)	☐	☐	☐	☐	☐	☐
Organic arable crop production creates more jobs than non-organic production	☐	☐	☐	☐	☐	☐
Organic arable crops production protect better the natural resources than non-organic production	☐	☐	☐	☐	☐	☐
Organic arable crop production positively influences skills development of staff and employees	☐	☐	☐	☐	☐	☐
Organic arable crop production has other important benefits	☐	☐	☐	☐	☐	☐
Organic dairy production is more profitable than non-organic dairy production	☐	☐	☐	☐	☐	☐
Organic dairy production creates more jobs than non-organic production	☐	☐	☐	☐	☐	☐
Organic dairy production protects better the natural resources than non-organic production	☐	☐	☐	☐	☐	☐
Organic dairy production positively influences skills development of staff and employees	☐	☐	☐	☐	☐	☐
Organic dairy production has other important benefits	☐	☐	☐	☐	☐	☐

C2. You indicated that organic dairy production has other important benefits. Please specify what these benefits are.

C3. You indicated that organic crop production has other important benefits. Please specify what these benefits are.

Section D: Crop production

You indicated that you are involved with crop production. We would now like to ask you some specific questions about your crop production.

D1. Is organic inspection involved in your crop production activities?

Yes ☐
No ☐

D2. Crop Production – Did you convert from conventional production to organic, or you started up a completely new activity in this area (from 'nothing')?

	Yes	Uncertain	No
I added organic products to the conventional production, which we continue	☐	☐	☐
I converted from conventional production to work now 100% with organic	☐	☐	☐
I started up a new business (from nothing), working with conventional and organic	☐	☐	☐
I started up a new business (from nothing), working 100% organic	☐	☐	☐

D3. In which year was the first organic inspection of your crop production?

D4. In which year was your produce first organically certified?

D5. Farm size – Please specify the surfaces of your farm.

Total farm size (in Ha)	
Surface with organic certification (in Ha)	
Surface under organic transition (in Ha)	
Non-organic surface (in Ha)	

D6. Organic Crop Production – Please indicate how many hectares of each of the following crops you grow on your farm organically (with organic certification).

Arable crops – oil crops (in Ha)	
Arable crops – cereals (in Ha)	
Vegetables (in Ha)	
Annual fruits (in Ha)	
Perennial berries (in Ha)	
Orchards (in Ha)	
Vineyards (in Ha)	

D7. Crop Production under organic conversion – Please indicate how many hectares of each of the following crops you grow on your farm under organic conversion.

Arable crops – cereals (in Ha)	
Arable crops – oil crops (in Ha)	
Vegetables (in Ha)	
Annual fruits (in Ha)	
Perennial berries (in Ha)	
Orchards (in Ha)	
Vineyards (in Ha)	

D8. Conventional Crop Production – Please indicate how many hectares of each of the following crops you grow on your farm conventionally (neither organically certified nor under organic conversion).

Arable crops – cereals (in Ha)	
Arable crops – oil crops (in Ha)	
Vegetables (in Ha)	
Annual fruits (in Ha)	
Perennial berries (in Ha)	
Orchards (in Ha)	
Vineyards (in Ha)	

D9. Do you farm other crops that have not been listed in the previous questions? Please specify and indicate for each crop: how many hectares are under cultivation; and whether the crops are produced organically, are under organic conversion, or conventionally.

Section E: Animal husbandry

You indicated that you are involved with animal husbandry. We would now like to ask you some specific questions about your animal husbandry.

E1. Is organic inspection involved in your animal husbandry activities?

- Yes ☐
- No ☐

E2. Animal Husbandry – Did you convert from conventional production to organic, or you started up a completely new activity in this area (from 'nothing')?

	Yes	Uncertain	No
I added organic products to the conventional production, which we continue	☐	☐	☐
I converted from conventional production to work now 100% with organic	☐	☐	☐
I started up a new business (from nothing), working with conventional and organic	☐	☐	☐
I started up a new business (from nothing), working 100% organic	☐	☐	☐

E3. In which year was the first organic inspection of your animal husbandry?

E4. In which year was your animal husbandry produce first organically certified?

E5. Animal husbandry – *Please specify what type of animals you* farm organically (with organic certification).

- Dairy cows (Numbers)
- Beef cattle(Numbers)
- Sheep (Numbers)
- Goats (Numbers)
- Pigs (Numbers)
- Chickens (Numbers)

E6. Animal husbandry – Please specify what type of animals you farm under organic conversion.

- Dairy cows (Numbers)
- Beef cattle(Numbers)
- Sheep (Numbers)
- Goats (Numbers)
- Pigs (Numbers)
- Chickens (Numbers)

E7. Animal husbandry – Please specify what type of animals you farm under conventional production (neither organically certified nor under organic conversion).

- Dairy cows (Numbers)
- Beef cattle(Numbers)
- Sheep (Numbers)
- Goats (Numbers)
- Pigs (Numbers)

Chickens (Numbers)

E8. Do you farm other types of animal that were not listed in the previous questions? Please specify and indicate for each animal type: how many animals you farm; and whether they are organically certified, under conversion, or conventionally farmed.

Section F: Wild Collection

You indicated that you are involved with wild collection. We would now like to ask you some specific questions about your wild collection.

F1. Is organic inspection involved in your wild collection activities?

Yes ☐
No ☐

F2. Wild collection – Did you convert from conventional production to organic, or you started up a completely new activity in this area (from 'nothing')?

	Yes	Uncertain	No
I added organic products to the conventional production, which we continue	☐	☐	☐
I converted from conventional production to work now 100% with organic	☐	☐	☐
I started up a new business (from nothing), working with conventional and organic	☐	☐	☐
I started up a new business (from nothing), working 100% organic	☐	☐	☐

F3. In which year was the first organic inspection of your wild collection?

F4. In which year was your wild collected produce first organically certified?

Section G: Beekeeping

You indicated that you are involved with bee-keeping. We would now like to ask you some specific questions about your bee-keeping.

G1. Is organic inspection involved in your bee-keeping activities?

Yes ☐
No ☐

G2. Bee-keeping – Did you convert from conventional production to organic, or you started up a completely new activity in this area (from 'nothing')?

	Yes	Uncertain	No
I added organic products to the conventional production, which we continue	☐	☐	☐
I converted from conventional production to work now 100% with organic	☐	☐	☐
I started up a new business (from nothing), working with conventional and organic	☐	☐	☐
I started up a new business (from nothing), working 100% organic	☐	☐	☐

G3. In which year was the first organic inspection of your bee-keeping?

G4. In which year was your bee-keeping produce first organically certified?

Section H: Aquaculture

You indicated that you are involved with aquaculture We would now like to ask you some specific questions about your aquaculture.

H1. Is organic inspection involved in your aquaculture activities?

Yes ☐
No ☐

H2. Aquaculture – Did you convert from conventional production to organic, or you started up a completely new activity in this area (from 'nothing')?

	Yes	Uncertain	No
I added organic products to the conventional production, which we continue	☐	☐	☐
I converted from conventional production to work now 100% with organic	☐	☐	☐
I started up a new business (from nothing), working with conventional and organic	☐	☐	☐
I started up a new business (from nothing), working 100% organic	☐	☐	☐

H3. In which year was the first organic inspection of your aquaculture?

H4. In which year was your aquaculture produce first organically certified?

Section I: Processing

You indicated that you are involved with processing. We would now like to ask you some specific questions about your processing.

I1. Is organic inspection involved in your processing activities?

Yes ☐
No ☐

I2. Processing – Did you convert from conventional production to organic, or you started up a completely new activity in this area (from 'nothing')?

	Yes	Uncertain	No
I added organic products to the conventional production, which we continue	☐	☐	☐
I converted from conventional production to work now 100% with organic	☐	☐	☐
I started up a new business (from nothing), working with conventional and organic	☐	☐	☐
I started up a new business (from nothing), working 100% organic	☐	☐	☐

I3. In which year was the first organic inspection of your processing?

I4. In which year was your processing first organically certified?

I5. ***Please indicate which type(s) of farming your processing activities relate to.***

Arable crops products ☐
Dairy products ☐
Other ☐

Other

Section J: Trading

You indicated that you are involved with trading We would now like to ask you some specific questions about your trading activities.

J1. Is organic inspection involved in your trading activities?

- Yes ☐
- No ☐

J2. Trading – Did you convert from conventional production to organic, or you started up a completely new activity in this area (from 'nothing')?

	Yes	Uncertain	No
I added organic products to the conventional production, which we continue	☐	☐	☐
I converted from conventional production to work now 100% with organic	☐	☐	☐
I started up a new business (from nothing), working with conventional and organic	☐	☐	☐
I started up a new business (from nothing), working 100% organic	☐	☐	☐

J3. *Please indicate which type(s) of farming your trading activities relate to.*

- Arable crops products ☐
- Dairy products ☐
- Other ☐

Other

Section K: Input supply

You indicated that you are involved with supplying agricultural inputs. We would now like to ask you some specific questions about your input supply.

K1. Is organic inspection involved in your input supply activities?

- Yes ☐
- No ☐

K2. Input supply – Did you convert from conventional production to organic, or you started up a completely new activity in this area (from 'nothing')?

	Yes	Uncertain	No
I added organic products to the conventional production, which we continue	☐	☐	☐
I converted from conventional production to work now 100% with organic	☐	☐	☐
I started up a new business (from nothing), working with conventional and organic	☐	☐	☐
I started up a new business (from nothing), working 100% organic	☐	☐	☐

K3. *Please indicate which type(s) of farming your input supply activities relate to.*

- Crop protection products ☐
- Crop fertilization products ☐
- Other products for crops production ☐
- Animal husbandry products ☐
- Other ☐

Other

Section L: Service provision

You indicated that you are involved with service provision. We would now like to ask you some specific questions about the services you provide.

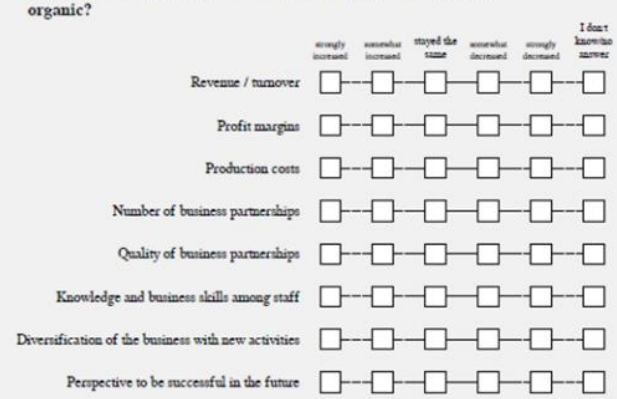
L1. What type of services do you offer?

- Consultancy for organic crop production ☐
- Consultancy for organic dairy production ☐
- Event organization for organic stakeholders ☐
- Policy advice ☐
- Organic certification ☐
- Other ☐

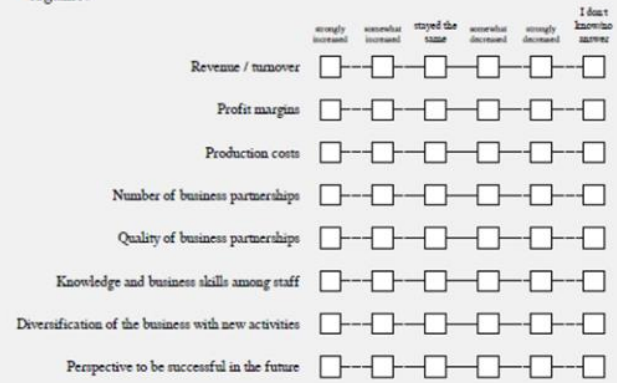
Other

Section M: Business performance

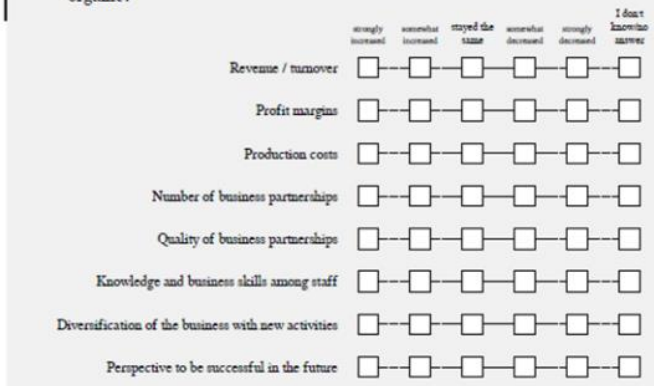
M1. **Business performance: How have the following business performance indicators changed for your business since you started to work with organic?**



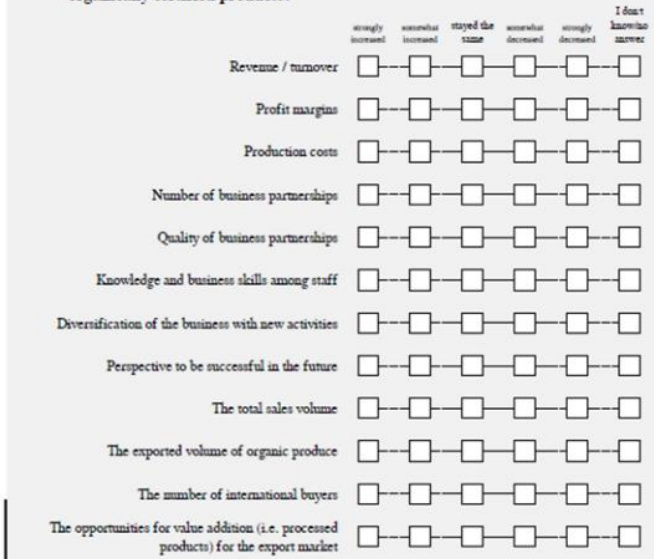
M2. **Business performance: How have the following business performance indicators changed for your business since you started to work with organic?**



M3. **Business performance: How have the following business performance indicators changed for your business since you started to work with organic?**



M4. **Business performance: How have the following business performance indicators changed for your business since you started to work with organically certified products?**



	strongly increased	somewhat increased	stayed the same	somewhat decreased	strongly decreased	I don't know/no answer
The number of export countries	☐	☐	☐	☐	☐	☐
The volume of organic produce for the domestic market	☐	☐	☐	☐	☐	☐
The number of domestic buyers	☐	☐	☐	☐	☐	☐
The opportunities for value addition (i.e. processed products) for the domestic market	☐	☐	☐	☐	☐	☐

Section N: Market

N1. Market – Please indicate the importance of the markets where your organic produce is currently sold.

	very important	somewhat important	neither important nor unimportant	somewhat unimportant	not important at all	This does not apply
Bulk raw arable crops for export market	☐	☐	☐	☐	☐	☐
Bulk raw arable crops for domestic market	☐	☐	☐	☐	☐	☐
Dairy products for export market	☐	☐	☐	☐	☐	☐
Dairy products for domestic market	☐	☐	☐	☐	☐	☐
Inputs for export market	☐	☐	☐	☐	☐	☐
Inputs for domestic market	☐	☐	☐	☐	☐	☐
Other for export market	☐	☐	☐	☐	☐	☐
Other for domestic market	☐	☐	☐	☐	☐	☐

N2. In the previous question, you indicated other produce either for export or for domestic market. Please specify which produce for what market.

N3. Future sales trends: How do you predict <u>your</u> sales opportunities will change in the coming 10 years?

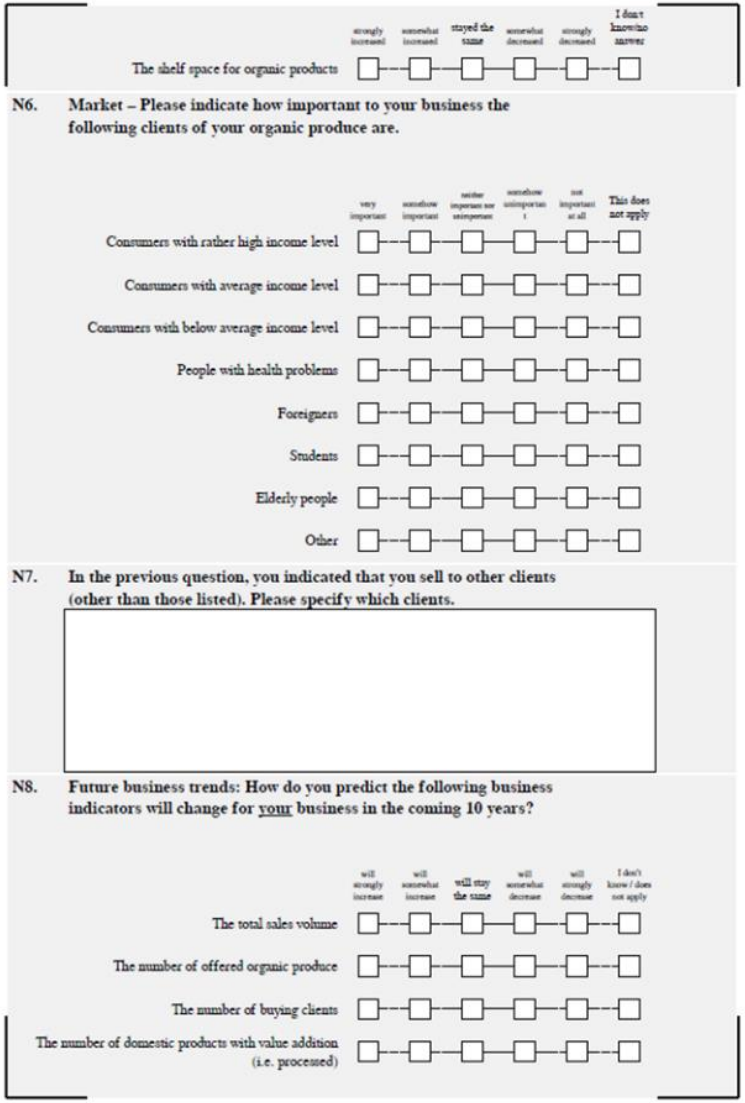
	will strongly increase	will somewhat increase	will stay the same	will somewhat decrease	will strongly decrease	I don't know / does not apply
The total sales volume	☐	☐	☐	☐	☐	☐
The exported volume of organic produce	☐	☐	☐	☐	☐	☐
The number of international buyers	☐	☐	☐	☐	☐	☐
New opportunities for value addition (i.e. processed products) for the export market	☐	☐	☐	☐	☐	☐
The number of countries to which I export	☐	☐	☐	☐	☐	☐
The volume of organic produce for the domestic market	☐	☐	☐	☐	☐	☐
The number of domestic buyers	☐	☐	☐	☐	☐	☐
New opportunities for value addition (i.e. processed products) for the domestic market	☐	☐	☐	☐	☐	☐

N4. Business trends in the past: How have the following indicators changed since you started to sell organic products?

	strongly increased	somewhat increased	stayed the same	somewhat decreased	strongly decreased	I don't know/no answer
The total sales volume	☐	☐	☐	☐	☐	☐
The number of different offered organic produce	☐	☐	☐	☐	☐	☐
The number of buying clients	☐	☐	☐	☐	☐	☐
The number of domestic products with value addition (i.e. processed)	☐	☐	☐	☐	☐	☐

N5. Business trends in the past: How have the following indicators changed in the past three years?

	strongly increased	somewhat increased	stayed the same	somewhat decreased	strongly decreased	I don't know/no answer
The total sales volume	☐	☐	☐	☐	☐	☐
The number of offered organic produce	☐	☐	☐	☐	☐	☐
The number of buying clients	☐	☐	☐	☐	☐	☐
The number of domestic products with value addition (i.e. processed)	☐	☐	☐	☐	☐	☐



	strongly increased	somewhat increased	stayed the same	somewhat decreased	strongly decreased	I don't know/no answer
The shelf space for organic products	☐	☐	☐	☐	☐	☐

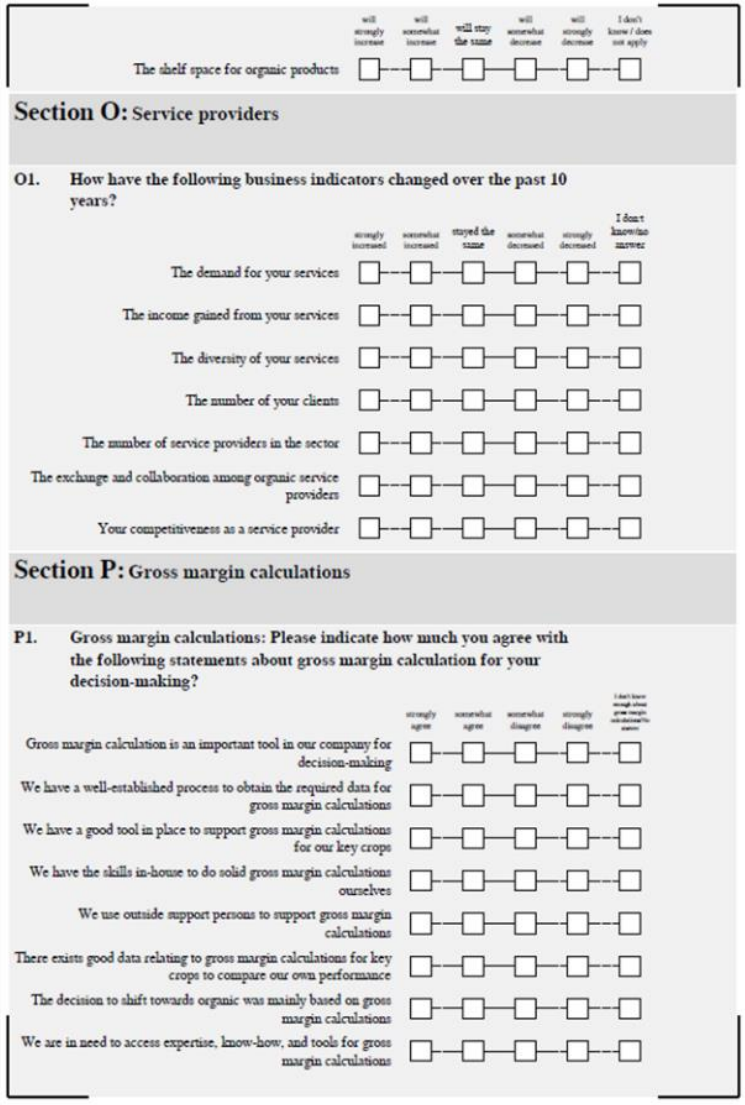
N6. Market – Please indicate how important to your business the following clients of your organic produce are.

	very important	somehow important	neither important nor unimportant	somehow unimportant	not important at all	This does not apply
Consumers with rather high income level	☐	☐	☐	☐	☐	☐
Consumers with average income level	☐	☐	☐	☐	☐	☐
Consumers with below average income level	☐	☐	☐	☐	☐	☐
People with health problems	☐	☐	☐	☐	☐	☐
Foreigners	☐	☐	☐	☐	☐	☐
Students	☐	☐	☐	☐	☐	☐
Elderly people	☐	☐	☐	☐	☐	☐
Other	☐	☐	☐	☐	☐	☐

N7. In the previous question, you indicated that you sell to other clients (other than those listed). Please specify which clients.

N8. Future business trends: How do you predict the following business indicators will change for <u>your</u> business in the coming 10 years?

	will strongly increase	will somewhat increase	will stay the same	will somewhat decrease	will strongly decrease	I don't know / does not apply
The total sales volume	☐	☐	☐	☐	☐	☐
The number of offered organic produce	☐	☐	☐	☐	☐	☐
The number of buying clients	☐	☐	☐	☐	☐	☐
The number of domestic products with value addition (i.e. processed)	☐	☐	☐	☐	☐	☐



	will strongly increase	will somewhat increase	will stay the same	will somewhat decrease	will strongly decrease	I don't know / does not apply
The shelf space for organic products	☐	☐	☐	☐	☐	☐

Section O: Service providers

O1. How have the following business indicators changed over the past 10 years?

	strongly increased	somewhat increased	stayed the same	somewhat decreased	strongly decreased	I don't know/no answer
The demand for your services	☐	☐	☐	☐	☐	☐
The income gained from your services	☐	☐	☐	☐	☐	☐
The diversity of your services	☐	☐	☐	☐	☐	☐
The number of your clients	☐	☐	☐	☐	☐	☐
The number of service providers in the sector	☐	☐	☐	☐	☐	☐
The exchange and collaboration among organic service providers	☐	☐	☐	☐	☐	☐
Your competitiveness as a service provider	☐	☐	☐	☐	☐	☐

Section P: Gross margin calculations

P1. Gross margin calculations: Please indicate how much you agree with the following statements about gross margin calculation for your decision-making?

	strongly agree	somewhat agree	somewhat disagree	strongly disagree	I don't know enough about gross margin calculations/No answer
Gross margin calculation is an important tool in our company for decision-making	☐	☐	☐	☐	☐
We have a well-established process to obtain the required data for gross margin calculations	☐	☐	☐	☐	☐
We have a good tool in place to support gross margin calculations for our key crops	☐	☐	☐	☐	☐
We have the skills in-house to do solid gross margin calculations ourselves	☐	☐	☐	☐	☐
We use outside support persons to support gross margin calculations	☐	☐	☐	☐	☐
There exists good data relating to gross margin calculations for key crops to compare our own performance	☐	☐	☐	☐	☐
The decision to shift towards organic was mainly based on gross margin calculations	☐	☐	☐	☐	☐
We are in need to access expertise, know-how, and tools for gross margin calculations	☐	☐	☐	☐	☐

P2. **FiBL together with the local service provider plans to hold a workshop on Gross Margin Calculations for arable crop producers in the Ukraine. If you are interested to participate in this event, please let us know if**

	Yes	No
you would like to be invited to an event relating to arable crops	☐	☐
you would like to be invited to an event relating to berries production	☐	☐
you would be willing to share your cost data to serve as a case study for such an event	☐	☐

Section Q: Job creation

Q1. **Employment: How many persons were employed in your organic crop production activities at the time when organic inspection started?**

- permanent staff - men
- permanent staff - women
- seasonal workers - men
- seasonal workers - women

Q2. **Employment: How many persons are employed in your organic crop production activities today?**

- permanent staff - men
- permanent staff - women
- seasonal workers - men
- seasonal workers - women

Q3. **Employment: How many persons were employed in your organic animal husbandry activities at the time when organic inspection started?**

- permanent staff - men
- permanent staff - women
- seasonal workers - men
- seasonal workers - women

Q4. **Employment: How many persons are employed in your organic animal husbandry activities today?**

- permanent staff - men
- permanent staff - women
- seasonal workers - men
- seasonal workers - women

Q5. **Employment: How many persons were employed in your organic wild collection activities at the time when organic inspection started?**

- permanent staff - men
- permanent staff - women
- seasonal workers - men
- seasonal workers - women

Q6. **Employment: How many persons are employed in your organic wild collection activities today?**

- permanent staff - men
- permanent staff - women
- seasonal workers - men
- seasonal workers - women

Q7. **Employment: How many persons were employed in your organic bee-keeping activities at the time when organic inspection started?**

- permanent staff - men
- permanent staff - women
- seasonal workers - men
- seasonal workers - women

Q8. **Employment: How many persons are employed in your organic bee-keeping activities today?**

- permanent staff - men
- permanent staff - women
- seasonal workers - men
- seasonal workers - women

Q9. **Employment: How many persons were employed in your organic aquaculture activities at the time when organic inspection started?**

permanent staff - men
permanent staff - women
seasonal workers - men
seasonal workers - women

Q10. **Employment: How many persons are employed in your organic aquaculture activities today?**

permanent staff - men
permanent staff - women
seasonal workers - men
seasonal workers - women

Q11. **Employment: How many persons were employed in your organic processing activities at the time when organic inspection started?**

permanent staff - men
permanent staff - women
seasonal workers - men
seasonal workers - women

Q12. **Employment: How many persons are employed in your organic processing activities today?**

permanent staff - men
permanent staff - women
seasonal workers - men
seasonal workers - women

Q13. **Employment: How many persons were employed in your organic trading activities at the time when organic inspection started?**

permanent staff - men
permanent staff - women
seasonal workers - men
seasonal workers - women

Q14. **Employment: How many persons are employed in your organic trading activities today?**

permanent staff - men
permanent staff - women
seasonal workers - men
seasonal workers - women

Q15. **Employment: How many persons were employed in your organic input supply activities at the time when organic inspection started?**

permanent staff - men
permanent staff - women
seasonal workers - men
seasonal workers - women

Q16. **Employment: How many persons are employed in your organic input supply activities today?**

permanent staff - men
permanent staff - women
seasonal workers - men
seasonal workers - women

Q17. **Employment: How many persons were employed in your organic retail activities at the time when organic inspection started?**

permanent staff - men
permanent staff - women
seasonal workers - men
seasonal workers - women

Q18. **Employment: How many persons are employed in your organic retail activities today?**

permanent staff - men
permanent staff - women
seasonal workers - men
seasonal workers - women

Q19. **Employment: How many persons were employed in your organic service provision activities when you started your activities in organic sector?**

- permanent staff - men
- permanent staff - women
- seasonal workers - men
- seasonal workers - women

Q20. **Employment: How many persons are employed in your organic service provision activities today?**

- permanent staff - men
- permanent staff - women
- seasonal workers - men
- seasonal workers - women

Section R: Project awareness

Over the past decade, FiBL has run a project in Ukraine called 'The Organic Market Development in Ukraine Project' . We'd like to ask you some questions about how much you know about the project.

R1. **How much do you know about FiBL's 'Organic Market Development Project' in Ukraine?**

	I know it very well	I know it quite well	I know a bit about it	I've heard of it but don't know about it	I've never heard of it
How much you know about this project?	☐	☐	☐	☐	☐

R2. **How do you see the contribution of this project for the development of the organic sector in Ukraine? Please indicate how much you agree or disagree with the following statements.**

The Organic Market Development in Ukraine Project implemented by FiBL has contributed to…

	strongly agree	somewhat agree	neither agree nor disagree	somewhat disagree	strongly disagree	I don't know/no answer
Growth of organic arable crop production	☐	☐	☐	☐	☐	☐
An increase of organic dairy production	☐	☐	☐	☐	☐	☐
Growth in number of services in the organic sector	☐	☐	☐	☐	☐	☐
Improved quality of services in the organic sector	☐	☐	☐	☐	☐	☐
Growth of exports of organic produce	☐	☐	☐	☐	☐	☐
Growth of the domestic organic market	☐	☐	☐	☐	☐	☐
Organic policy development	☐	☐	☐	☐	☐	☐
Improved access to relevant information	☐	☐	☐	☐	☐	☐
Increase of number and quality of learning events	☐	☐	☐	☐	☐	☐
Growth in possibilities for value addition (i.e. processing) for the export market	☐	☐	☐	☐	☐	☐
Growth in possibilities for value addition (i.e. processing) for the domestic market	☐	☐	☐	☐	☐	☐
Creation of employment at the production level	☐	☐	☐	☐	☐	☐
Creation of employment at the processing level	☐	☐	☐	☐	☐	☐
Creation of employment at the trade and retail level	☐	☐	☐	☐	☐	☐

Section S: Project support

S1. **How do you perceive the project's benefits for your own activities and work?**

	Yes	Uncertain	No
I have benefited directly from the project	☐	☐	☐
I have benefited indirectly from the project	☐	☐	☐

S2. **You indicated that you have (or may have) received some direct or indirect benefits from the project. Please specify.**

S3. Any other comments you want to share about the FiBL implemented Project, in regard to how it was implemented, the benefits it generated or what it would need to prioritize in case it would be continued with a potential new phase?

We very much thank you that you took this time to support this study! If you indicated that you would like a copy of the results, we will contact you to share the final study on a memory stick together with other important documents which were produced by our Project!

If you think that somebody else should also fill in this survey AS WELL AS you, please forward their email address to oleksandra.hasiuk@fibl.org (so they can be sent an invitation).